



Edd Clark & Associates, Inc.

Environmental Consultants

January 26, 2006

**Job No.: 0302,001.97**

Emil Shokohi  
% Mansor Shokohi  
P.O. Box 866  
Albion, CA 95410

**Groundwater Monitoring Report - September 2005 Event**

**Former Albion Shell  
3300 Highway 1 North  
Albion, California**

Dear Mr. Shokohi:

This report presents the results of Edd Clark & Associates, Inc.'s (EC&A's) September 30, 2005 groundwater monitoring activities completed in the vicinity of the former Albion Shell Station, 3300 Highway 1 North (site) in Albion, California (Figure 1). Groundwater monitoring has been conducted quarterly at the site and near-site vicinity since October 1999 at the request of the North Coast Regional Water Quality Control Board (NCRWQCB) because of a release of fuel hydrocarbons (FHCs) to soil and groundwater from underground storage tanks (USTs) for gasoline formerly located at the site. Groundwater monitoring for the September 2005 event was conducted in accordance with the NCRWQCB's July 8, 2004, revised *MRP No. R1-2004-0061* and with verbal revisions to this MRP agreed upon by the NCRWQCB and EC&A on September 30, 2005. In the Sept 15, 2005 report of the June 2005 sample event, EC&A recommended the elimination of MW-1, MW-5, MW-8, MW-9, MW-11, and MW-12 from the monitoring program. The NCRWQCB requested that these wells be sampled annually in the first quarter (possibly second, depending on seasonal rainfall). The September 2005 monitoring event is the fourth monitoring event conducted at the site since activation of the ozone microsparging systems on November 1, 2004. A copy of this report will be sent to the NCRWQCB and to the Mendocino County Environmental Health Department (MCEHD) for their review.

**Completed Scope of Work**

Work performed for the September 2005 sampling event included:

- Measuring depth to water (DTW) in monitoring wells MW-1, MW-2 and MW-5 through MW-18;
- Calculating the groundwater-flow direction and gradient;
- Collecting groundwater samples for chemical analyses from MW-2, MW-6, MW-7, MW-10, MW-13 through MW-18, the water-supply well servicing the site (DW-1), one of the water-supply wells servicing the Ledford House Restaurant (LHW-2) and a surface-water sample from the duck pond (DP);
- Measuring ozone microsparging groundwater parameters from MW-2, MW-6, MW-7, MW-10 and MW-13 through MW-18;
- Evaluating the results of the calculations and sample analyses; and
- Preparing this report.

## Monitoring Wells

### Water-level Measurements

On September 30, 2005, EC&A personnel measured groundwater levels in MW-1, MW-2 and MW-5 through MW-18. DTW below the top of the well casing (TOC) in each well was measured to the nearest 0.01 foot (ft) with a water-level meter. The meter was cleaned and rinsed prior to taking measurements in each well. Groundwater-level measurements were recorded after the well caps were removed and groundwater in the wells was allowed to equilibrate for a minimum of 15 minutes. DTW ranged from 4.31 ft in MW-15 to 15.28 ft in MW-8; groundwater-flow direction and gradient in the vicinity of the former USTs were S78°W and 0.073 ft/ft, respectively (Figure 3 and Table 1). Water-level data from MW-13 and MW-14 were not used to calculate the groundwater-flow direction and gradient because these wells are deep wells and are screened within bedrock.

Groundwater Field Logs containing the DTW measurements are in Appendix A. DTW data will be electronically submitted to the State GeoTracker Internet Database.

### Monitoring Well Groundwater Sampling Procedures

On September 30, 2005, EC&A personnel collected groundwater samples from MW-2, MW-6, MW-7, MW-10 and MW-13 through MW-18. Prior to collecting samples, the monitoring wells were purged with a submersible pump and the purged water checked for the presence of free-floating product. Free-floating product was not present in the purged water; however, an odor of FHCs was detected in water purged from MW-2, MW-6, MW-15, MW-16 and MW-18. Groundwater pH, temperature, electric conductivity and dissolved oxygen (DO) were measured during purging of the wells at intervals of approximately one well-casing volume. Groundwater samples were collected from the wells after groundwater parameters stabilized and either the water level returned to a minimum of 80% of the initially recorded water level or sufficient groundwater re-entered the well. Purge volumes and groundwater-quality parameters are recorded on the Field Logs in Appendix A.

Groundwater samples were collected in new single-sample, disposable bailers fitted with disposable bottom-emptying devices to minimize degassing of samples to be analyzed for volatile chemical constituents. Samples were transferred from the bailers to properly labeled, laboratory-supplied sterile sample containers, placed on ice and transported under chain-of-custody control to McCampbell Analytical, Inc. (MAI) for chemical analysis. MAI is a state-certified laboratory in Pacheco, California.

### Monitoring Well Groundwater Sample Analysis and Analytical Results

All groundwater samples collected from the monitoring wells were analyzed for total petroleum hydrocarbons (TPH) as gasoline (g) and benzene, toluene, ethylbenzene and xylenes (BTEX) by Analytical Methods SW8021B/8015Cm, and methyl tert-butyl ether (MTBE) and other gasoline oxygenates by Analytical Method SW8260B.

TPHg and benzene were detected in groundwater samples collected from MW-2, MW-6, MW-15, MW-16 and MW-18. TPHg concentrations ranged from 3700 micrograms per liter ( $\mu\text{g/l}$ ) in MW-2

to 91,000 µg/l in MW-15; benzene concentrations ranged from 410 µg/l (MW-2) to 17,000 µg/l (MW-15). Toluene, ethylbenzene and/or xylenes were also detected in MW-2, MW-6, MW-13 through MW-16 and MW-18 with the maximum concentrations in MW-15 (11,000 µg/l, 1500 µg/l and 6700 µg/l, respectively).

MTBE was detected in groundwater samples from MW-2, MW-6, MW-10 and MW-13 through MW-18 at concentrations ranging from 22 µg/l (MW-17) to 63,000 µg/l (MW-16). T-butyl alcohol (TBA) was detected in MW-2 and MW-13 at 1800 µg/l and 31 µg/l, respectively.

Analytical results for FHCs and oxygenates are presented in Table 2. Figures 5, 6 and 7 are isoconcentration maps of TPHg, benzene and MTBE, respectively, in groundwater. A complete copy of the analytical laboratory report is in Appendix B. The results of the analyses of the samples will be electronically submitted to the State GeoTracker Internet Database.

#### **Water-supply Wells and Surface Water**

On September 30, 2005, EC&A personnel collected groundwater samples from onsite water-supply well DW-1, offsite Ledford House Restaurant water-supply well LHW-2, and a surface-water sample from the duck pond (DP). Surface water was not present in sample locations SW-1 and SW-4 located in the southwest and northwest drainages, respectively.

#### Water-supply Wells and Surface-water Sampling Procedures

Sample DW-1 was collected from the closest tap to the well head after the tap ran for approximately 15 minutes. Sample LHW-2 was collected from a faucet located on the east side of the restaurant building. EC&A understands that water-supply wells LHW-1 and LHW-2 are plumbed together and water from these wells is stored and chlorinated in a single holding tank and then pumped to the Ledford House Restaurant. However, for the September 2005 event, restaurant staff reported that only LHW-2 was in service.

Surface-water sample DP was collected from the northwest corner of the duck pond (approximately 2 to 3 ft below the surface) by lowering sterile, laboratory-supplied sample containers directly into the water, avoiding contact with soil or other materials.

#### Water-supply Wells and Surface-water Sample Analysis and Analytical Results

Samples from DW-1, LHW-2 and DP were analyzed for TPHg and BTEX by Analytical Methods SW8021B/8015Cm, and for MTBE and other gasoline oxygenates by Analytical Method SW8260B.

FHCs were not detected in the samples collected from the water-supply wells nor the duck pond. Table 3 presents analytical results for samples collected from water-supply wells and surface waters. A complete copy of the analytical laboratory report is in Appendix B. The results of the analyses of the samples will be electronically submitted to the State GeoTracker Internet Database.

#### **Decontamination Procedures**

Sampling equipment was cleaned onsite with a low-phosphorous solution and double rinsed with tap water. Decontamination water and monitoring well purge water were placed in properly labeled, DOT 17H 55-gallon drums for temporary, onsite storage.

### Ozone Microsparging Groundwater Parameters

As required by the NCRWQCB in the revised *MRP No. RI-2004-0061*, groundwater samples from MW-2, MW-6 and MW-15 through MW-18 were also analyzed for the inorganic anions bromate and bromide (by Analytical Method E300.1) and dissolved metals hexachrome (by Analytical Method E218.6), molybdenum, selenium and vanadium (by Analytical Method E200.8). Field measurements for dissolved oxygen (DO), oxidation reduction potential (ORP), temperature and pH were collected from these wells to monitor the effectiveness of the ozone microsparging system. Measurements were collected after at least one well-casing volume was purged from each well. Although not required by the NCRWQCB, field measurements for DO, ORP, temperature and pH were measured in all monitoring wells sampled for this event.

Bromide was detected in samples collected from MW-2, MW-6 and MW-15 through MW-18 at concentrations ranging from 0.13 milligrams per liter (mg/l) in MW-17 to 1.5 mg/l in MW-15 and MW-18. Molybdenum was detected in MW-2 and MW-15 through MW-18 at concentrations ranging from 0.57 µg/l (MW-18) to 1.9 µg/l (MW-16 and MW-17). Selenium was detected in MW-15 and MW-16 at 0.82 µg/l and 0.78 µg/l, respectively. Vanadium was detected in MW-17 at 0.68 µg/l. None of the dissolved metal concentrations detected to date exceed their respective Water Quality Objectives (WQO; Table 4).

Analytical results for inorganic anions and dissolved metals are presented in Table 4; the results of the analyses of the samples will be electronically submitted to the State GeoTracker Internet Database. A complete copy of the analytical laboratory report is in Appendix B.

The locations of the sparge wells and trench system are shown on Figure 4. DO, ORP, temperature and pH field measurements are provided in Table 5. Ozone system Operation and Maintenance (O&M) comments are presented in Table 6.

## DISCUSSION AND RECOMMENDATIONS

### Groundwater Flow/Gradient

Groundwater-flow direction at the site continues to be to the southwest, ranging from S47°W to S78°W, with a gradient ranging from approximately 0.05 ft/ft to 0.1 ft/ft. Comparison of the potentiometric-surface elevations previously measured in paired wells MW-7/MW-14 and MW-10/MW-13 shows that a downward hydraulic gradient is present at these locations.

- The head differences between deep well MW-13 and shallow-water-table well MW-10 were as follows: -0.08 ft on May 23, 2002; -0.04 ft on August 27, 2002; -0.06 ft on November 27, 2002; -0.07 ft on February 11, 2003; -0.07 ft on May 28, 2003; -0.05 ft on August 26, 2003; -0.03 ft on November 25, 2003; -0.15 ft on February 26, 2004; -0.86 ft on May 27, 2004; -0.07 ft on August 26-27, 2004; +0.1 ft on March 30, 2005; -0.07 ft on June 22, 2005; and 0.00 ft on September 30, 2005.

- The head difference between deep well MW-14 and shallow-water-table well MW-7 were as follows: -5.80 ft on June 14, 2002; -3.81 ft on August 27, 2002; -4.08 ft on November 27, 2002; -4.67 ft on February 11, 2003; -4.20 ft on May 28, 2003; -3.81 ft on August 26, 2003; -3.77 ft on November 25, 2003; -3.58 ft on February 26, 2004; -3.7 ft on May 27, 2004; -2.98 ft on August 26-27, 2004; -3.85 ft on March 30, 2005; -3.16 ft on June 22, 2005; and -3.76 ft on September 30, 2005.

## Groundwater Quality

### Monitoring Well Groundwater Samples

To date, non-detectable or minor concentrations of one or more BTEX compounds have been reported in MW-1, MW-5, MW-7, MW-8, MW-9, MW-11, MW-12, MW-13, MW-14 and MW-17. Sporadic, minor concentrations of MTBE have been detected in MW-5, MW-7 (since the startup of the ozone systems), MW-8 and MW-9, which are located at the margin of the MTBE plume. Non-detectable or minor concentrations of TPHg and/or BTEX components, but relatively high concentrations of MTBE, have been detected in wells MW-7, MW-10, MW-13, MW-14 and MW-17.

Historically, the highest concentrations of TPHg, benzene and MTBE (analyzed by Method SW8260B) have been detected in destroyed monitoring wells MW-3 and MW-4 and monitoring wells MW-15 and MW-16, at maximum concentrations of 130,000 µg/l, 38,000 µg/l and 690,000 µg/l, respectively (MW-3, January and May 2000). After the destruction of MW-3 and MW-4 (2000 and 2001, respectively) and prior to the August 2004 event, the greatest concentrations of these analytes in the existing wells were detected in wells MW-2 and MW-6; however, concentrations of TPHg, benzene and MTBE in recently installed wells MW-15, MW-16 and MW-18 were either comparable to, or exceeded the historic maximum concentrations detected in MW-2 and MW-6.

In MW-2, which is located down-gradient from Remediation Trench RT1, TPHg, benzene and MTBE have been detected at maximum concentrations of 17,000 µg/l (January 2000), 2400 µg/l (May 2000) and 29,000 µg/l (August 2003), respectively. In March 2005, TBA was detected for the first time since April 2001 in MW-2 (4400 µg/l). For the September 2005 event, TBA was detected in MW-2 at 1800 µg/l. Between the June and September 2005 events, the concentration of TPHg increased significantly from 990 µg/l to 3700 µg/l, the concentration of benzene increased from 220 µg/l to 410 µg/l, and the MTBE concentration increased from 6000 µg/l to 6500 µg/l in MW-2.

In MW-6, which is located down-gradient from Remediation Trench RT2, TPHg, benzene and MTBE have been detected at maximum concentrations of 31,000 µg/l (July 2001), 3100 µg/l (December 2000 and July 2001) and 17,000 µg/l (September 2000), respectively. Between the June and September 2005 events, the concentration of TPHg increased from 11,000 µg/l to 13,000 µg/l, the concentration of benzene increased from 740 µg/l to 920 µg/l and the MTBE concentration increased from 4900 µg/l to 8200 µg/l. There appears to be a relationship between seasonal groundwater elevations and concentration of FHCs in MW-6. As groundwater rises, the concentrations of TPHg, benzene and MTBE decrease; as groundwater levels drop, concentrations increase.

In MW-15, which is located near the northern margin of the FHC plume, the September 2005 event showed the highest concentrations of FHCs to date in that well (91,000 µg/l TPHg, 17,000 µg/l benzene and 28,000 µg/l MTBE). Additionally, the maximum TPHg and benzene concentrations for the September 2005 event were detected in MW-15. Between the June and September 2005 events, the concentration of TPHg increased from 79,000 µg/l to 91,000 µg/l, the concentration of benzene increased from 14,000 µg/l to 17,000 µg/l, and the concentration of MTBE increased from 22,000 µg/l to 28,000 µg/l in MW-15.

In MW-16, which is located down-gradient of the former USTs and up-gradient of Trench RT1, concentrations of TPHg have ranged up to 67,000 µg/l (March 2005); benzene has ranged up to 12,000 µg/l (June 2005); and MTBE has ranged up to 63,000 µg/l (September 2005). The maximum MTBE concentration for the September 2005 event was detected in MW-16. TBA was detected in MW-16 for the first time at a concentration of 16,000 µg/l in March 2005. In September 2005, TBA was not detected in MW-16; however, the reporting limit was 10,000 µg/l. Between the June and September 2005 events, the concentration of TPHg decreased from 62,000 µg/l to 45,000 µg/l; the concentration of benzene decreased from 12,000 µg/l to 9600 µg/l and the concentration of MTBE increased from 45,000 µg/l to 63,000 µg/l in MW-16.

TPHg and BTEX compounds have not been reported from MW-17, which is located in the backfill of the December 2000 over-excavation; the MTBE concentration in this well increased slightly from 20 µg/l in June 2005 to 22 µg/l in September 2005.

In MW-18, which is located down-gradient of the former USTs and up-gradient of Trench RT2, concentrations of TPHg have ranged up to 28,000 µg/l (August 2004); benzene has ranged up to 5200 µg/l (December 2004); and MTBE has ranged up to 32,000 µg/l (September 2005). TBA was detected in MW-18 for the first time in March 2005 at a concentration of 6500 µg/l; however, in previous events the reporting limit has ranged from 5000 µg/l to 10,000 µg/l. Between the June and September 2005 events, the concentration of TPHg decreased from 14,000 µg/l to 9900 µg/l, the concentration of benzene decreased from 2100 µg/l to 2000 µg/l and the concentration of MTBE increased from 19,000 µg/l to 32,000 µg/l in MW-18, the highest concentration of MTBE detected to date in that well.

In samples from the paired shallow and deep wells MW-10 and MW-13 from May 2002 to September 2005, the MTBE concentration has been lower in the deep well (MW-13). MTBE concentrations in MW-13 typically are about an order of magnitude lower than the concentrations in MW-10.

At the MW-7/MW-14 pair, from November 2002 to September 2005, the MTBE concentration has been lower in the shallow well (MW-7). The MTBE concentration in shallow well MW-7 has declined from 2400 µg/l in December 2000 to ND in August 2004 through September 2005. In deep well MW-14, the MTBE concentration has declined from 460 µg/l in May and August 2003 to 94 µg/l in September 2005.

TBA was detected in destroyed well MW-3 at 50,000 µg/l in January 2000. In the existing monitoring wells, TBA has been detected in MW-2, MW-6, MW-10, MW-13 and MW-15 through MW-18 at a maximum concentration of 16,000 µg/l (MW-16, March 2005). For the September 2005 event, TBA was detected in MW-2 at 1800 µg/l. The reporting limit for TBA ranged from ND<5.0 µg/l to ND<10,000 µg/l in samples from the other existing wells.

The lateral extent of the TPHg, benzene and MTBE plumes in groundwater are indicated on Figures 5, 6 and 7, respectively. These figures show that the FHC plume in groundwater forms two lobes: one extending toward the west from the location of the former USTs and pump island (northwest plume), and one extending southwest from the duck pond (southwest plume). The southwest lobe is the largest of the two lobes.

Historically, isoconcentration maps of the FHC plume have indicated that the MTBE portion of the plume within both lobes had migrated the farthest from the source of the release. The maximum extent of the MTBE plume in the southwest lobe is in the vicinity of the MW-10/MW-13 well pair; MTBE concentrations in these wells fluctuate between monitoring events, and appear to be declining overall.

Comparison of MTBE concentrations in the November 2002 through September 2005 sampling events shows that the down-gradient extent of the northwest lobe has retreated from near MW-9 in November 2002 and February 2003, to east of MW-7, which was ND for the third consecutive time in September 2005. Previously, MTBE concentrations in MW-7 have been as high as 2400 µg/l (December 2000). Residual concentrations of MTBE remain in groundwater in shallow bedrock at the location of MW-14 (94 µg/l).

#### Water-well and Surface-water Samples

To date, FHCs have not been detected in water samples collected from water-supply well DW-1 servicing the site, the well pond (WP-1) next to DW-1, water-supply wells LHW-1/LHW-2 servicing the Ledford House Restaurant, the Ledford House pond, nor the northwest drainage (SW-3 and SW-4). MTBE has been detected in water samples collected from the southwest (duck pond) drainage (SW-1 and SW-2) at concentrations up to 62 µg/l (SW-1, January 2002). In June 2005 MTBE was detected at 2.5 µg/l in SW-1.

Generally, the duck pond has been sampled quarterly since September 1999. Historically, MTBE detections in the duck pond have ranged from 14 µg/l (September 1999) to 420 µg/l (May 2000). Following the October 2003 installation of a High Density Polyethylene (HDPE) liner in the duck pond, MTBE concentrations have been below the reporting limit of <0.5 µg/l.

#### Ozone Microsparging Remediation Evaluation

Comparison of pre-ozone microsparging (August 2004 sampling event) TPHg, benzene and MTBE concentrations with those from the September 2005 sampling event show that in the area of RT1 (northwest plume), benzene and MTBE concentrations in MW-2 (down-gradient from RT1) have decreased since August 2004; TPHg has fluctuated significantly between sampling events. TPHg,

benzene and MTBE concentrations increased significantly in MW-15 (cross-gradient from RT1 and down-gradient from T1SP-8) and in MW-16 (up-gradient from RT1).

In the area of RT2 (southwest plume), TPHg and benzene concentrations in MW-6 (down-gradient from RT2) have decreased since August 2004; MTBE concentrations in MW-6 have risen. Comparison of data from August 2004 and September 2005 show the concentration of TPHg in MW-6 to be 13,000 µg/l for both events; however, concentrations have fluctuated significantly between these two events, decreasing to 9500 µg/l in March 2005. In MW-18 (up-gradient from RT2), TPHg and benzene concentrations have decreased since August 2004, and MTBE concentrations have increased.

MTBE concentrations in MW-17, which is located in the December 2000 over-excavation, have decreased from the pre-ozone microsparging concentration of 250 µg/l (August 2004) to 22 µg/l in September 2005.

The overall increase in FHC concentrations in groundwater following startup of the ozone system probably represents either mobilization of FHCs previously adsorbed to soil below the water table as a result of the injection of ozone and oxygen to groundwater, or an unusually high groundwater table due to higher than average rainfall.

Comparison of the inorganic anions and dissolved metals analytical results from the August 2004 pre-ozone microsparging sampling event with those from subsequent sampling events show that, to date, ozone injection has not significantly mobilized these analytes in groundwater (Table 4).

Dissolved oxygen (DO) concentrations are similar to those measured in previous monitoring events. The highest DO concentrations were measured in the un-impacted wells (MW-7, MW-8, MW-9, MW-11 and MW-12) and the two deep wells (MW-13 and MW-14). MW-5 is the only un-impacted well that has low DO concentrations (0.22 ppm, Table 6).

### **Recommendations**

Groundwater monitoring should continue to be performed at the site. The monitoring program should continue be evaluated with respect to minimizing the sampling frequency and/or laboratory analyses of selected sampling locations. The ozone microsparging systems should continue to be inspected on a monthly basis and during sampling events.

In the report of the June 22, 2005 groundwater monitoring event, EC&A recommended that monitoring of MW-1, MW-5, MW-8, MW-9, MW-11 and MW-12 be discontinued.

On December 2, 2005, EC&A discussed the monitoring program with the NCRWQCB with respect to possible changes for the next sampling event, which is scheduled for late December 2005. The NCRWQCB provisionally agreed to modify the groundwater monitoring program for December 2005 as follows:

- Sample monitoring wells MW-2, MW-6, MW-9, MW-11, MW-15, MW-16, MW-17 and MW-18, water wells DW-1 and LHW-1/LHW-2 and surface water sample locations DP, SW-1 and SW-4;
- MW-2, MW-6, MW-15, MW-16, MW-18, DW-1, LHW-1/LHW-2 analyzed for TPHg/BTEX and oxygenates (8260B); and,
- MW-9, MW-11, MW-17, DP, SW-1 and SW-4 for oxygenates (8260B).

Additionally, as required by *MRP No. RI-2004-0061*, groundwater samples from wells MW-2, MW-6 and MW-15 through MW-18 will be analyzed for bromide, bromate, hexachrome, vanadium, selenium and molybdenum by Analytical Methods E300.1/E218.6/E200.8. Field measurements for DO, ORP, temperature and pH will also be measured in these wells. EC&A will confirm the modifications to the monitoring program for December 2005 with the NCRWQCB prior to collecting samples.

The owners of the neighboring property have requested that the NCRWQCB consider the abandonment of MW-8 and MW-12. In MW-8, FHC concentrations have been non-detect except for detections of benzene, toluene, xylenes and MTBE at 0.67 µg/l, 2.1 µg/l, 1.9 µg/l and 1.3 µg/l, respectively, in September 2000 and a detection of xylenes at 1.5 µg/l in August 2003. In MW-12, FHC concentrations have been non-detect except for a one-time detection of benzene, ethylbenzene, and xylenes at 0.57 µg/l, 0.63 µl, and 1.5 µl, respectively, in May 2004. However, because the MTBE concentration in MW-10 in the September 2005 monitoring event was the highest detected to date in that well (1400 µg/l), EC&A has concerns about the stability of the perimeter of the southwestern lobe of the MTBE plume. EC&A believes that groundwater samples should be collected from MW-8 and MW-12 for at least one more monitoring event before making a decision in this matter. These monitoring wells are scheduled to be sampled in March 2006 during seasonally high water table levels when the migration of MTBE in groundwater is expected to be at its maximum. Additionally, assuming the analytical results from the March 2006 event confirm the stability of the MTBE plume, MW-8 and MW-12 should not be abandoned until the ground surface is dry enough to minimize any adverse impacts to the ground surface from the drill rig.

#### Schedule

The next groundwater sampling event is a quarterly event and is scheduled for late December 2005 (fourth quarter event).

#### Limitations

The conclusions presented in this report are professional opinions based on the data presented, including data generated by others. Whereas EC&A does not guarantee the accuracy of information supplied by third parties, we reserve the right to use this information in formulating our professional opinions. They are intended only for the indicated purpose and project site. Conclusions and recommendations presented herein apply to site conditions existing at the time of our study. Changes in the conditions of the site property can occur with time because of natural processes or the works of man on the site or adjacent properties. Changes in applicable standards can also occur as the result of legislation or from the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

Thank you for allowing EC&A to provide continued environmental consulting services for you.  
Please call John Calomiris, EC&A project manager, if you have any questions.

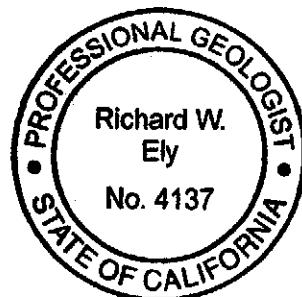
Sincerely,

*John Calomiris*

Etta Jon VandenBosch  
Environmental Scientist

*Richard Ely*

Richard Ely, PG #4137  
Senior Geologist



Attachments: Figure 1 - Site Location Map

Figure 2 - Site Plan

Figure 3 - Groundwater Elevation Map, 30 September 2005

Figure 4 - Remediation Trench, Sparge Point, and Recent Monitoring Well Locations

Figure 5 - Isoconcentration Map of TPHg in Groundwater, 30 September 2005

Figure 6 - Isoconcentration Map of Benzene in Groundwater, 30 September 2005

Figure 7 - Isoconcentration Map of MTBE in Groundwater, 30 September 2005

Table 1 - Groundwater Elevation Data

Table 2 - Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers

Table 3 - Water-supply Wells, Test Wells and Surface Water Sample Analytical Results

Table 4 - Monitoring Well Groundwater Sample Analytical Results: Inorganic Anions and Dissolved Metals

Table 5 - Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH

Table 6 - Ozone System Operations and Maintenance Log

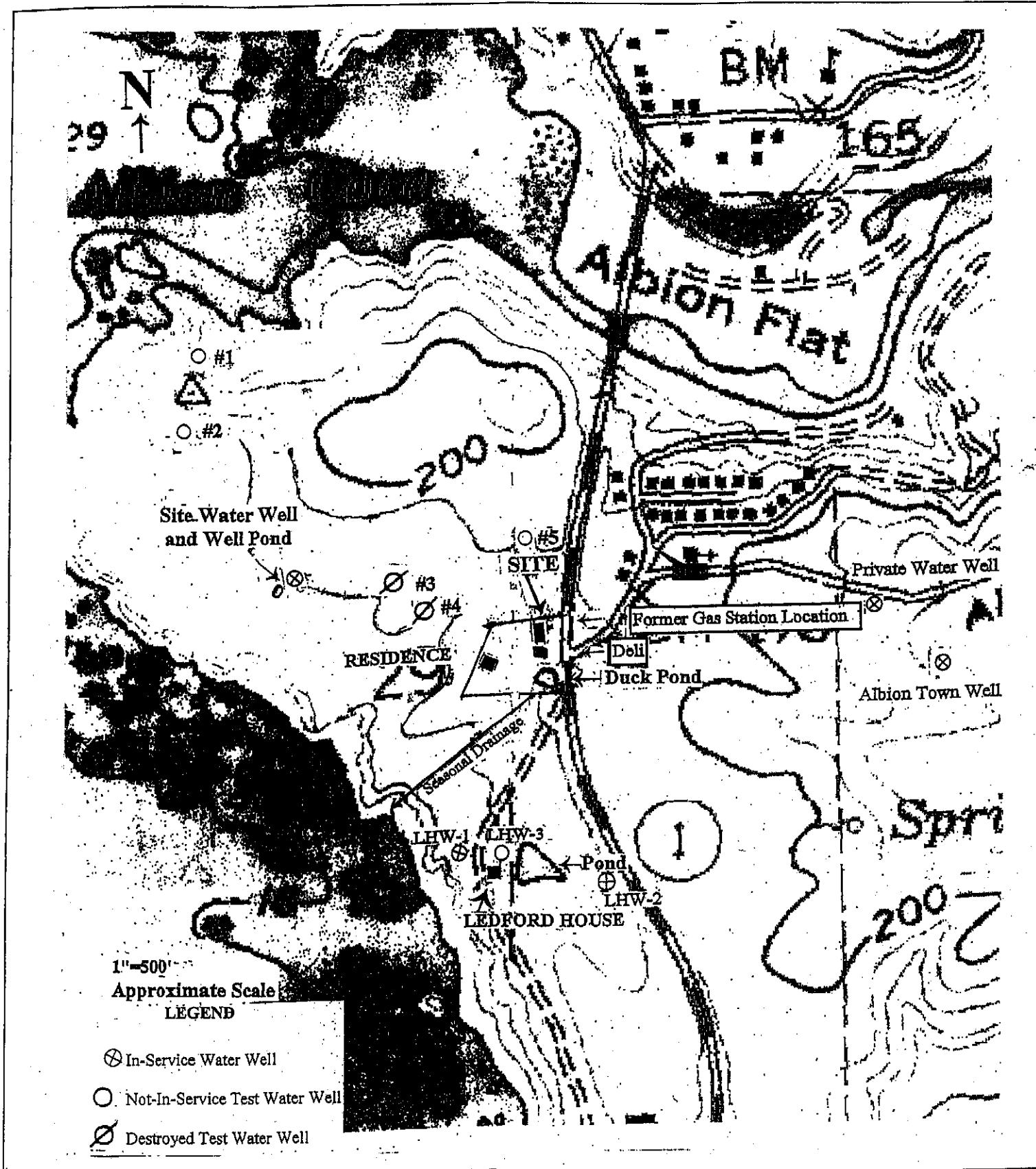
Appendix A - Groundwater Field Logs

Appendix B - Laboratory Analytical Report

Appendix C - O&M Logs

cc: Mr. Craig Hunt, North Coast Regional Water Quality Control Board  
Mr. George Hynek, Mendocino County Environmental Health Department  
Mr. Paul Hoffey, Erler & Kalinowski, Inc.  
Bruce & Carol Smith

0302\QMR Sept05

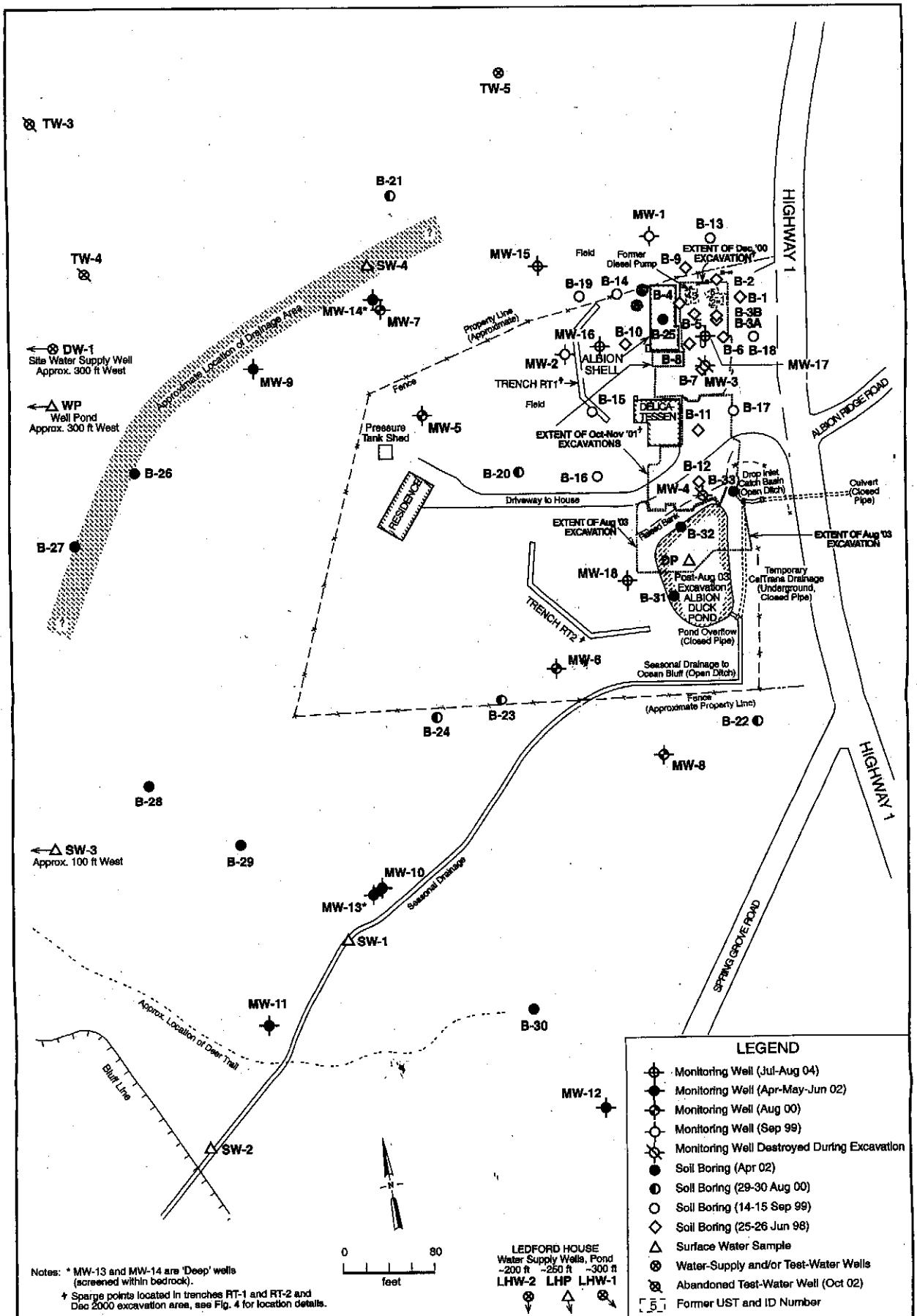


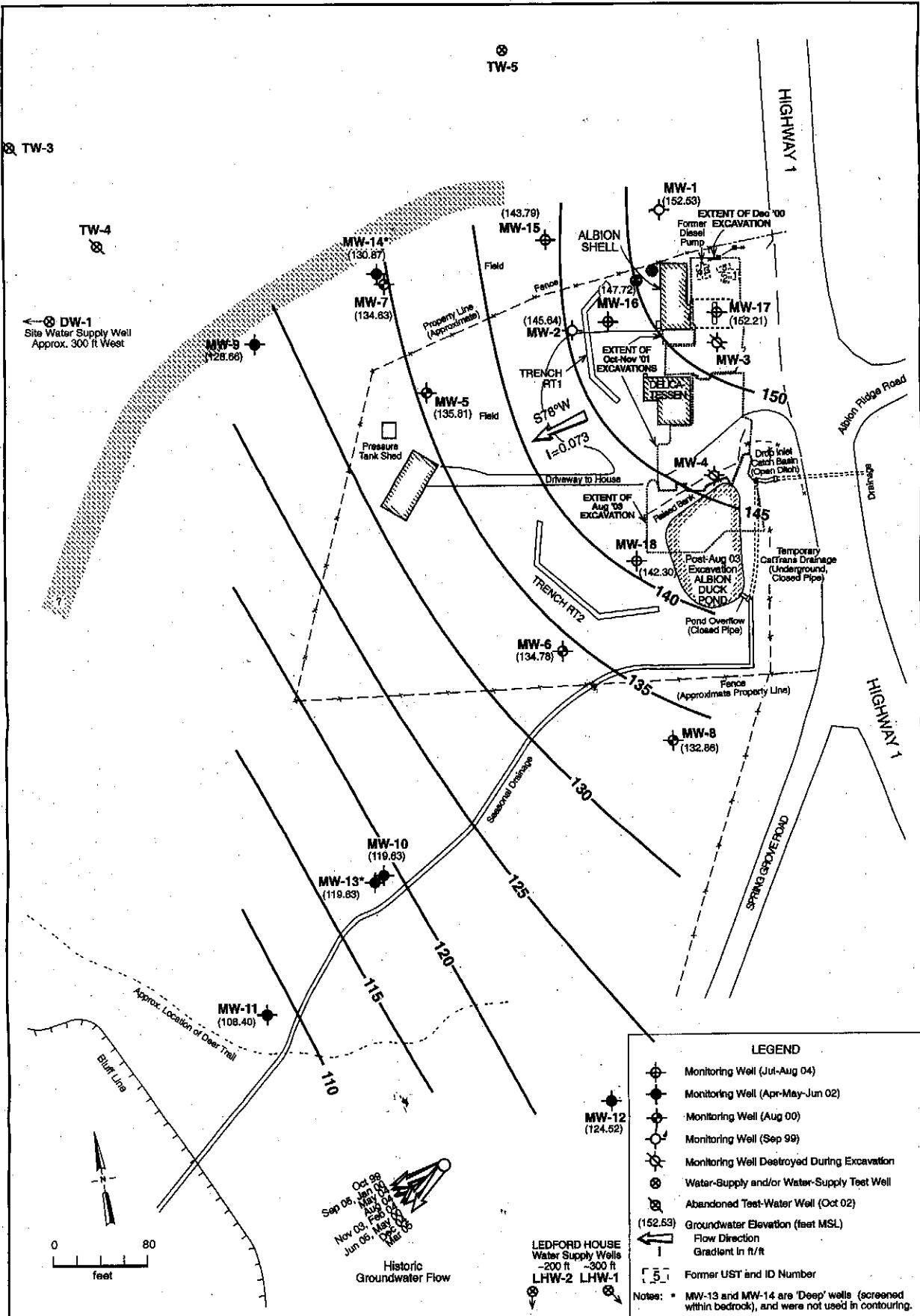
**EDD CLARK & ASSOCIATES, INC.**  
ENVIRONMENTAL CONSULTANTS

**Site Location Map**  
Former Albion Shell  
3300 N. Highway 1  
Albion, California

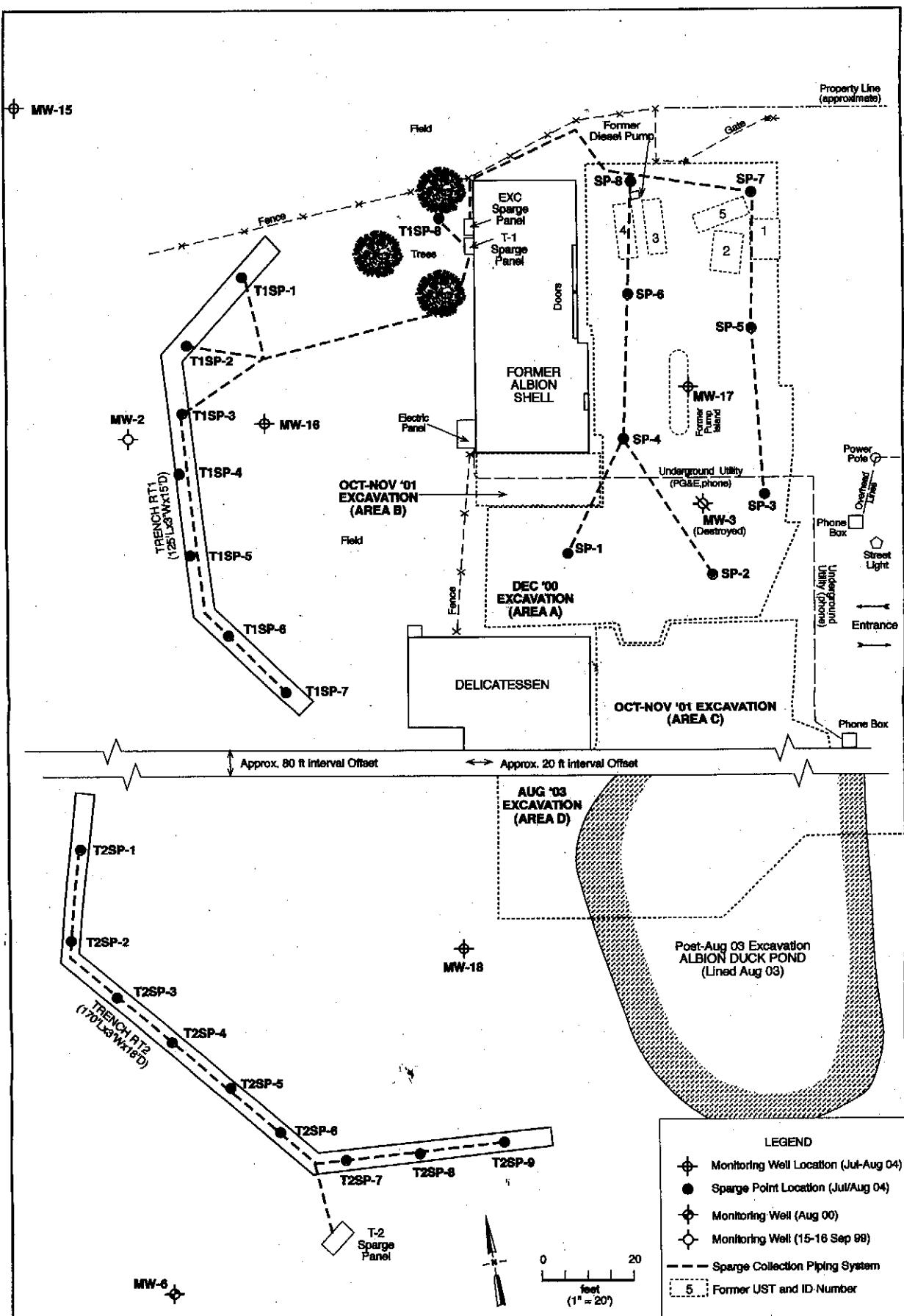
FIGURE

1





3



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ENVIRONMENTAL CONSULTANTS

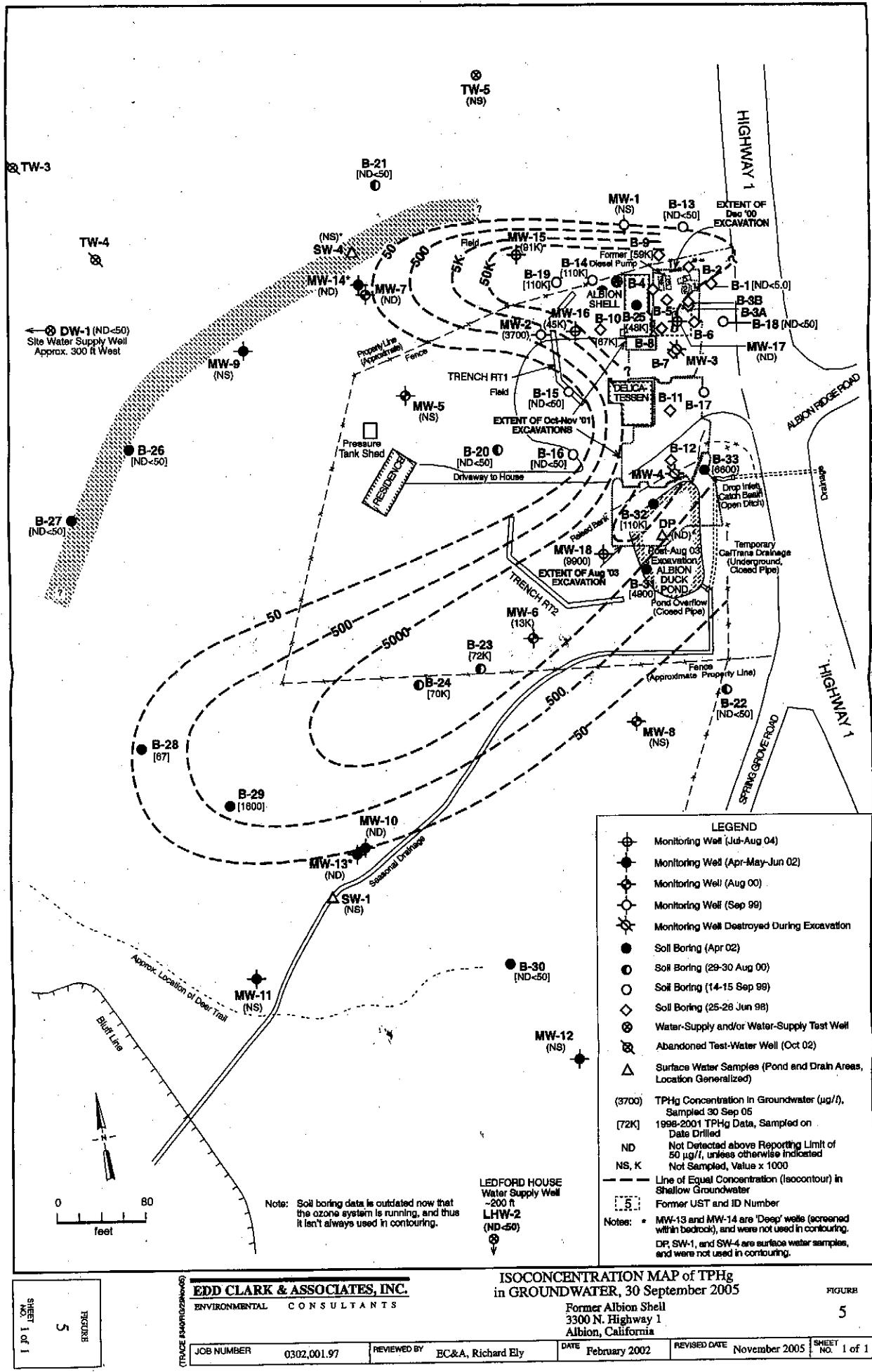
REMEDIATION TRENCH, SPARGE POINT, and  
RECENT MONITORING WELL LOCATIONS

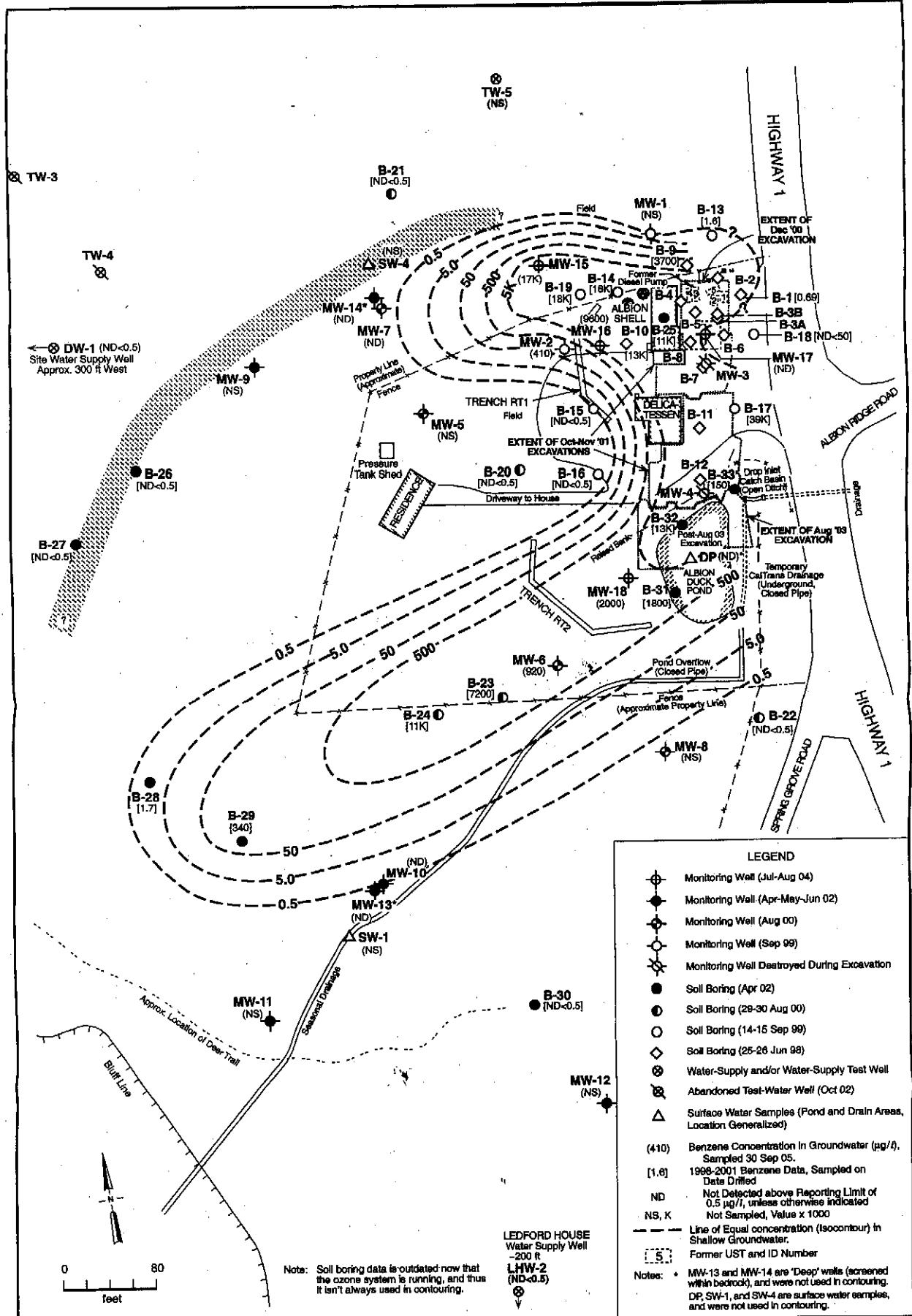
FIGURE

Former Albion Shell  
3300 N. Highway 1  
Albion, California

4

JOB NUMBER	0302,001,97	REVIEWED BY	BC&A, John Calomiris	DATE	February 2002	REVISED DATE	January 2005	SHEET NO.	1 of 1
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Note: Soil boring data is outdated now that the ozone system is running, and thus it isn't always used in contouring.

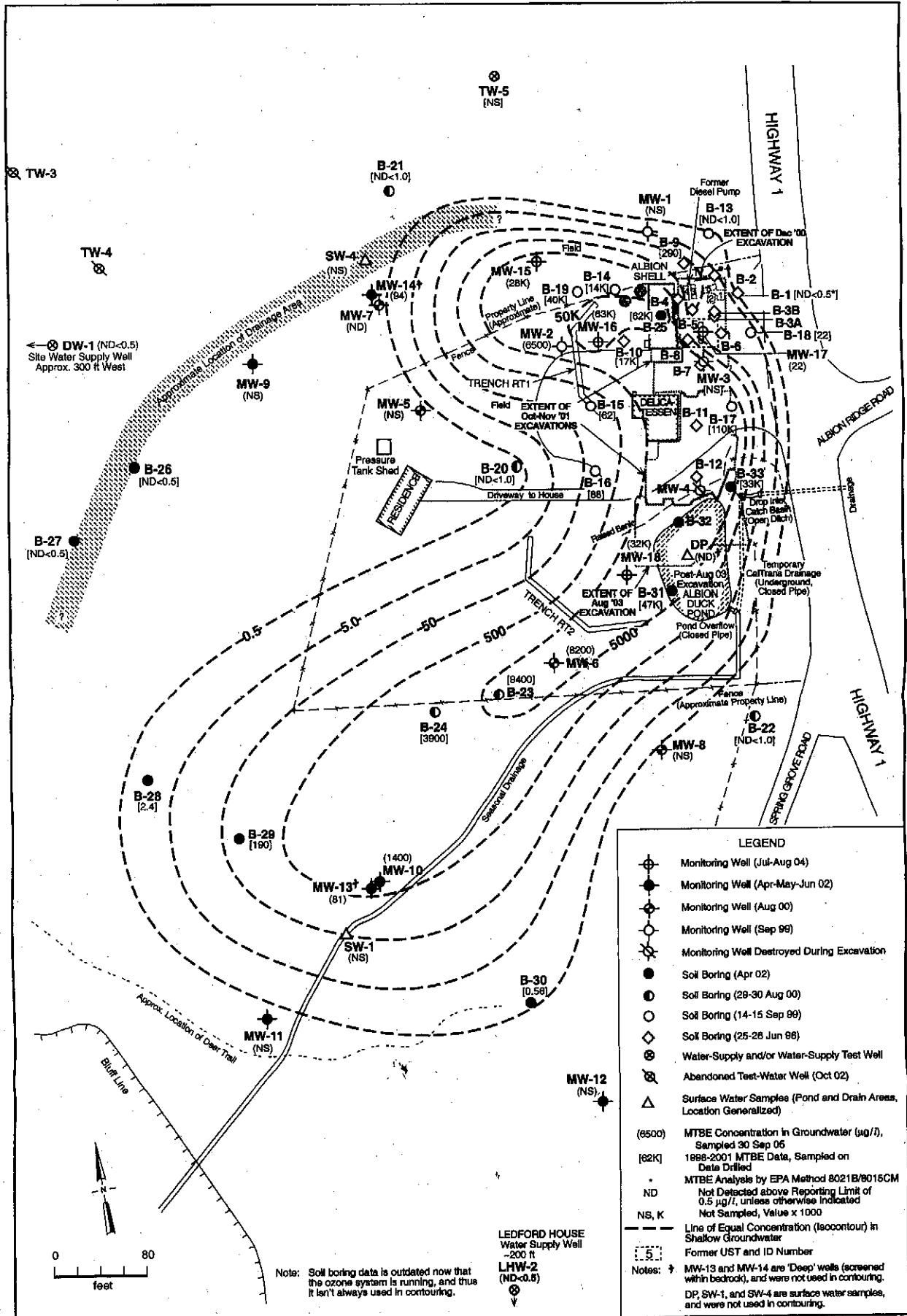
**ISOCONCENTRATION MAP of BENZENE  
in GROUNDWATER, 30 September 2005**

Former Albion Shell  
3300 N. Highway 1  
Albion, California

## FIGURE

6

ENVIRONMENTAL CONSULTANTS  
Former Albion Shell  
3300 N. Highway 1  
Albion, California



**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Page 1 of 10**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
10/11/99	MW-1	4'-10'	159.35	11.30	148.05
	MW-2	5'-15'	149.89	9.89	140.00
	MW-3	4'-14'	156.10	7.09	149.01
	MW-4	4'-14'	149.16	7.00	142.16
Gradient = S77°W, 0.08 ft/ft					
01/27/00	MW-1	4'-10'	159.35	7.95	151.40
	MW-2	5'-15'	149.89	6.04	143.85
	MW-3	4'-14'	156.10	3.10	153.00
	MW-4	4'-14'	149.16	3.78	145.38
Gradient = S75°W, 0.09 ft/ft					
05/25/00	MW-1	4'-10'	159.35	3.44	155.91
	MW-2	5'-15'	149.89	6.65	143.24
	MW-3	4'-14'	156.10	3.93	152.17
	MW-4	4'-14'	149.16	4.80	144.36
Gradient = S57°W, 0.10 ft/ft					
09/13/00	MW-1	4'-10'	159.35	10.30	149.05
	MW-2	5'-15'	149.89	8.74	141.15
	MW-3	4'-14'	156.10	6.46	149.64
	MW-4	4'-14'	149.16	6.60	142.56
	MW-5	5'-15'	146.09	8.03	138.06
	MW-6	5'-15'	142.19	11.32	130.87
	MW-7	5'-15'	139.59	8.58	131.01
	MW-8	5'-15'	145.69	17.21	128.48
Gradient = S71°W, 0.068 ft/ft					
12/06-07/00	MW-1	4'-10'	159.35	9.71	149.64
	MW-2	5'-15'	149.89	9.12	140.77
	MW-3	4'-14'	156.10	5.79	150.31
	MW-4	4'-14'	149.16	4.88	144.28

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
12/06-07/00 continued	MW-5	5'-15'	146.09	9.28	136.81
	MW-6	5'-15'	142.19	9.35	132.84
	MW-7	5'-15'	139.59	7.51	132.08
	MW-8	5'-15'	145.69	17.59	128.10
Gradient = S76°W, 0.061 ft/ft					
04/16/01	MW-1	4'-10'	159.35	6.25	153.10
	MW-2	5'-15'	149.89	5.53	144.36
	MW-3 *	---	---	---	---
	MW-4	4'-14'	149.16	5.10	144.06
	MW-5	5'-15'	146.09	10.17	135.92
	MW-6	5'-15'	142.19	7.84	134.35
	MW-7	5'-15'	139.59	5.06	134.53
	MW-8	5'-15'	145.69	11.84	133.85
Gradient = S57°W, 0.063 ft/ft					
07/17/01	MW-1	4'-10'	159.35	9.22	150.13
	MW-2	5'-15'	149.89	9.04	140.85
	MW-3 *	---	---	---	---
	MW-4	4'-14'	149.16	5.56	143.60
	MW-5	5'-15'	146.09	9.81	136.28
	MW-6	5'-15'	142.19	10.06	132.13
	MW-7	5'-15'	139.59	7.58	132.01
	MW-8	5'-15'	145.69	15.42	130.27
Gradient = S66°W, 0.052 ft/ft					
10/30/01	MW-1	4'-10'	159.35	12.81	146.54
	MW-2	5'-15'	149.89	10.76	139.13
	MW-4 **	---	---	6.60*	142.56*
	MW-5	5'-15'	146.09	10.43	135.66
	MW-6	5'-15'	142.19	11.88	130.31

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Page 3 of 10**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
10/30/01 continued	MW-7	5'-15'	139.59	10.07	129.52
	MW-8	5'-15'	145.69	Dry	(<128)
Gradient = S69°W, 0.070 ft/ft					
01/30/02	MW-1	4'-10'	159.35	4.39	154.96
	MW-2	5'-15'	149.89	3.78	146.11
	MW-5	5'-15'	146.09	6.32	139.77
	MW-6	5'-15'	142.19	6.21	135.98
	MW-7	5'-15'	139.59	4.23	135.36
	MW-8	5'-15'	145.69	10.96	134.73
Gradient = S47°W, 0.09 ft/ft					
05/23/02	MW-1	4'-10'	161.80	6.53	155.27
	MW-2	5'-15'	152.34	6.88	145.46
	MW-5	5'-15'	148.54	10.25	138.29
	MW-6	5'-15'	144.64	8.25	136.39
	MW-7	5'-15'	142.10	6.04	136.06
	MW-8	5'-15'	148.14	13.65	134.49
	MW-9	5'-20'	136.42	6.71	129.71
	MW-10	5'-15'	127.13	5.98	121.15
	MW-11	4'-9'	115.71	6.36	109.35
	MW-12	5'-20'	136.36	9.19	127.17
	MW-13	19'-24'	126.71	5.64	121.07
Gradient = S66°W, 0.07 ft/ft					
06/14/02	MW-7	5'-15'	142.10	7.19	134.91
	MW-14	30'-34.5'	141.67	12.56	129.11
08/27/02	MW-1	4'-10'	161.80	10.81	150.99
	MW-2	5'-15'	152.34	9.91	142.43
	MW-5	5'-15'	148.54	9.57	138.97
	MW-6	5'-15'	144.64	10.98	133.66
	MW-7	5'-15'	142.10	9.75	132.35

**Table 1. Groundwater Elevation Data****Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
08/27/02 continued	MW-8	5'-15'	148.14	16.64	131.50
	MW-9	5'-20'	136.42	9.39	127.03
	MW-10	5'-15'	127.13	8.53	118.60
	MW-11	4'-9'	115.71	9.48	106.23
	MW-12	5'-20'	136.36	13.26	123.10
	MW-13	19'-24'	126.71	8.15	118.56
	MW-14	30'-34.5'	141.67	13.13	128.54
Gradient = S75°W, 0.06 ft/ft					
11/27/02	MW-1	4'-10'	161.80	13.29	148.51
	MW-2	5'-15'	152.34	10.15	142.19
	MW-5	5'-15'	148.54	12.63	135.91
	MW-6	5'-15'	144.64	8.89	135.75
	MW-7	5'-15'	142.10	10.33	131.77
	MW-8	5'-15'	148.14	17.70	130.44
	MW-9	5'-20'	136.42	10.96	125.46
	MW-10	5'-15'	127.13	7.82	119.31
	MW-11	4'-9'	115.71	9.62	106.09
	MW-12	5'-20'	136.36	14.67	121.69
	MW-13	19'-24'	126.71	7.46	119.25
	MW-14	30'-34.5'	141.67	13.98	127.69
Gradient = S72°W, 0.05 ft/ft					
02/11/03	MW-1	4'-10'	161.80	5.11	156.69
	MW-2	5'-15'	152.34	3.85	148.49
	MW-5	5'-15'	148.54	10.36	138.18
	MW-6	5'-15'	144.64	6.17	138.47
	MW-7	5'-15'	142.10	4.47	137.63
	MW-8	5'-15'	148.14	11.45	136.69
	MW-9	5'-20'	136.42	4.61	131.81
	MW-10	5'-15'	127.13	5.30	121.83

**Table 1. Groundwater Elevation Data**

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Former Albion Shell, 3300 N. Highway 1, Albion, California

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
02/11/03 continued	MW-11	4'-9'	115.71	5.37	110.34
	MW-12	5'-20'	136.36	6.75	129.61
	MW-13	19'-24'	126.71	4.95	121.76
	MW-14	30'-34.5'	141.67	8.71	132.96
Gradient = S74°W, 0.071 ft/ft					
05/28/03	MW-1	4'-10'	161.80	5.41	156.39
	MW-2	5'-15'	152.34	4.83	147.51
	MW-5	5'-15'	148.54	10.60	137.94
	MW-6	5'-15'	144.64	7.43	137.21
	MW-7	5'-15'	142.10	5.07	137.03
	MW-8	5'-15'	148.14	12.27	135.87
	MW-9	5'-20'	136.42	4.71	131.71
	MW-10	5'-15'	127.13	5.73	121.40
	MW-11	4'-9'	115.71	6.11	109.60
	MW-12	5'-20'	136.36	7.44	128.92
	MW-13	19'-24'	126.71	5.38	121.33
	MW-14	30'-34.5'	141.67	8.84	132.83
Gradient = S78°W, 0.075 ft/ft					
08/26/03	MW-1	4'-10'	161.80	8.56	153.24
	MW-2	5'-15'	152.34	8.22	144.12
	MW-5	5'-15'	148.54	10.54	138.00
	MW-6	5'-15'	144.64	10.91	133.73
	MW-7	5'-15'	142.10	8.26	133.84
	MW-8	5'-15'	148.14	16.07	132.07
	MW-9	5'-20'	136.42	7.83	128.59
	MW-10	5'-15'	127.13	8.18	118.95
	MW-11	4'-9'	115.71	9.08	106.63
	MW-12	5'-20'	136.36	12.43	123.93

**Table 1. Groundwater Elevation Data****Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
08/26/03 continued	MW-13	19'-24'	126.71	7.81	118.90
	MW-14	30'-34.5'	141.67	11.64	130.03
Gradient = S65°W, 0.068 ft/ft					
11/25/03	MW-1	4'-10'	161.80	12.13	149.67
	MW-2	5'-15'	152.34	9.71	142.63
	MW-5	5'-15'	148.54	9.19	139.35
	MW-6	5'-15'	144.64	11.65	132.99
	MW-7	5'-15'	142.10	9.51	132.59
	MW-8	5'-15'	148.14	17.60	130.54
	MW-9	5'-20'	136.42	9.98	126.44
	MW-10	5'-15'	127.13	9.95	117.18
	MW-11	4'-9'	115.71	11.09	104.62
	MW-12	5'-20'	136.36	15.02	121.34
	MW-13	19'-24'	126.71	9.56	117.15
	MW-14	30'-34.5'	141.67	12.85	128.82
Gradient = S68°W, 0.054 ft/ft					
02/26/04	MW-1	4'-10'	161.80	3.32	158.48
	MW-2	5'-15'	152.34	1.71	150.63
	MW-5	5'-15'	148.54	4.87	143.67
	MW-6	5'-15'	144.64	5.01	139.63
	MW-7	5'-15'	142.10	3.85	138.25
	MW-8	5'-15'	148.14	5.70	142.44
	MW-9	5'-20'	136.42	2.78	133.64
	MW-10	5'-15'	127.13	4.93	122.20
	MW-11	4'-9'	115.71	4.68	111.03
	MW-12	5'-20'	136.36	5.40	130.96
	MW-13	19'-24'	126.71	4.36	122.35
	MW-14	30'-34.5'	141.67	7.00	134.67
Gradient = S68°W, 0.072 ft/ft					

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
05/27/04	MW-1	4'-10'	161.80	6.81	154.99
	MW-2	5'-15'	152.34	6.81	145.53
	MW-5	5'-15'	148.54	11.19	137.35
	MW-6	5'-15'	144.64	9.62	135.02
	MW-7	5'-15'	142.10	6.82	135.28
	MW-8	5'-15'	148.14	NM	--
	MW-9	5'-20'	136.42	5.91	130.51
	MW-10	5'-15'	127.13	6.80	120.33
	MW-11	4'-9'	115.71	6.85	108.86
	MW-12	5'-20'	136.36	9.68	126.68
	MW-13	19'-24'	126.71	5.52	121.19
	MW-14	30'-34.5'	141.67	10.09	131.58
Gradient = S70°W, 0.067 ft/ft					
08/26-27/04	MW-1	4'-10'	161.80	10.91	150.89
	MW-2	5'-15'	152.34	9.43	142.91
	MW-5	5'-15'	148.54	12.92	135.62
	MW-6	5'-15'	144.64	12.17	132.47
	MW-7	5'-15'	142.10	9.96	132.14
	MW-8	5'-15'	148.14	17.28	130.86
	MW-9	5'-20'	136.42	9.66	126.76
	MW-10	5'-15'	127.13	9.16	117.97
	MW-11	4'-9'	115.71	10.24	105.47
	MW-12	5'-20'	136.36	13.96	122.4
	MW-13	19'-24'	126.71	8.81	117.9
	MW-14	30'-34.5'	141.67	12.51	129.16
	MW-15	5'-13'	148.10	7.41	140.69
	MW-16	5'-15'	153.52	7.47	146.05
	MW-17	5'-13'	157.51	5.94	151.57
	MW-18	5'-16'	146.64	5.99	140.65
Gradient = S64°W, 0.053 ft/ft					

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
12/16/04- 12/17/04	MW-1	4'-10'	161.80	NM	---
	MW-2	5'-15'	152.34	7.70	144.64
	MW-5	5'-15'	148.54	NM	---
	MW-6	5'-15'	144.64	7.08	137.56
	MW-7	5'-15'	142.10	NM	---
	MW-8	5'-15'	148.14	NM	---
	MW-9	5'-20'	136.42	9.25	127.17
	MW-10	5'-15'	127.13	NM	---
	MW-11	4'-9'	115.71	6.68	109.03
	MW-12	5'-20'	136.36	11.20	125.16
	MW-13	19'-24'	126.71	NM	---
	MW-14	30'-34.5'	141.67	NM	---
	MW-15	5'-13'	148.10	8.40	139.70
	MW-16	5'-15'	153.52	4.74	148.78
	MW-17	5'-13'	157.51	5.96	151.55
	MW-18	5'-16'	146.64	3.22	143.42
Gradient = S55°W, 0.062 ft/ft					
03/30/05	MW-1	4'-10'	161.80	3.27	158.53
	MW-2	5'-15'	152.34	1.04	151.30
	MW-5	5'-15'	148.54	4.72	143.82
	MW-6	5'-15'	144.64	6.18	138.46
	MW-7	5'-15'	142.10	3.99	138.11
	MW-8	5'-15'	148.14	7.86	140.28
	MW-9	5'-20'	136.42	4.29	132.13
	MW-10	5'-15'	127.13	5.22	121.91
	MW-11	4'-9'	115.71	4.56	111.15
	MW-12	5'-20'	136.36	7.81	128.55
	MW-13	19'-24'	126.71	4.70	122.01
	MW-14	30'-34.5'	141.67	7.41	134.26
	MW-15	5'-13'	148.10	4.70	143.40

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
03/30/05 continued	MW-16	5'-15'	153.52	1.50	152.02
	MW-17	5'-13'	157.51	2.01	155.50
	MW-18	5'-16'	146.64	2.55	144.09
Gradient = S47°W, 0.068 ft/ft					
06/22/05	MW-1	4'-10'	161.80	5.91	155.89
	MW-2	5'-15'	152.34	2.47	149.87
	MW-5	5'-15'	148.54	10.15	138.39
	MW-6	5'-15'	144.64	7.19	137.45
	MW-7	5'-15'	142.10	4.91	137.19
	MW-8	5'-15'	148.14	11.64	136.50
	MW-9	5'-20'	136.42	5.07	131.35
	MW-10	5'-15'	127.13	5.99	121.14
	MW-11	4'-9'	115.71	5.34	110.37
	MW-12	5'-20'	136.36	6.85	129.51
	MW-13	19'-24'	126.71	5.64	121.07
	MW-14	30'-34.5'	141.67	7.64	134.03
	MW-15	5'-13'	148.10	2.85	145.25
	MW-16	5'-15'	153.52	1.82	151.70
	MW-17	5'-13'	157.51	3.06	154.45
	MW-18	5'-16'	146.64	3.35	143.29
Gradient = S56°W, 0.07 ft/ft					
09/30/05	MW-1	4'-10'	161.80	9.27	152.53
	MW-2	5'-15'	152.34	6.70	145.64
	MW-5	5'-15'	148.54	12.73	135.81
	MW-6	5'-15'	144.64	9.86	134.78
	MW-7	5'-15'	142.10	7.47	134.63
	MW-8	5'-15'	148.14	15.28	132.86
	MW-9	5'-20'	136.42	7.76	128.66
	MW-10	5'-15'	127.13	7.50	119.63

**Table 1. Groundwater Elevation Data****Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
09/30/05 continued	MW-11	4'-9'	115.71	7.31	108.40
	MW-12	5'-20'	136.36	11.84	124.52
	MW-13	19'-24'	126.71	7.08	119.63
	MW-14	30'-34.5'	141.67	10.80	130.87
	MW-15	5'-13'	148.10	4.31	143.79
	MW-16	5'-15'	153.52	5.80	147.72
	MW-17	5'-13'	157.51	5.30	152.21
	MW-18	5'16'	146.64	4.34	142.30
<b>Gradient = S78°W, 0.073 ft/ft</b>					

The tops of the well casings (TOC) were surveyed to establish horizontal location and elevation relative to mean sea level. Wells MW-1, MW-2, MW-3 and MW-4 were surveyed on October 19, 1999 by Richard Seale, a California-licensed surveyor. Wells MW-5, MW-6, MW-7 and MW-8 well casings were surveyed on September 30, 2000 by Richard Seale.

Wells MW-7, MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14 were surveyed on June 27, 2002 by I. L Welty and Associates of Fort Bragg, CA, a California-licensed surveyor. The elevations are based on U.S. Coast & Geodetic Survey benchmark R 147. The elevation of this benchmark was adjusted from 176.23 ft to 178.68 ft for the 2002 survey. The TOC elevations for the older wells were adjusted to this datum. TOC elevations for MW-1, MW-7, MW-8 and MW-9 through MW-14 are approximately 3 ft above grade. These wells are monument wells.

Wells MW-5 and MW-6 were re-surveyed and, MW-15, MW-16, MW-17 and MW-18 were surveyed on December 9, 2004 by Virgil Chavez Land Surveying. The TOC elevations of MW-15, MW-16, MW-17 and MW-18 are based the California

State Coordinate System, Zone 11 (NAD83). The benchmark elevation used for this survey is 142.97 feet (NAVD88). The new elevations of MW-5 (148.12 ft) and MW-6 (144.18 ft) were 0.42 ft and 0.46 ft lower, respectively, than the previous survey results, apparently because a different datum was used. The surveyed elevations of the TOCs for MW-15 through MW-18 have been adjusted lower by 0.44 ft (the average of the changes in the MW-5 and MW-6 elevations).

TOC: Top of well casing

MSL: Mean sea level

\*: MW-3 was destroyed during December 2000 over-excavation.

\*\*: MW-4 was destroyed during October 2001 over-excavation. Water level was measured on October 25, 2001, before destruction.

NM: Not measured

**Table 2.** Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers  
Former Albion Shell, 3300 N. Highway 1, Albion, California

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Well ID	Date Sampled	TPHg µg/l	TPHD µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-2	10/12/99	4800 <sup>a</sup>	610 <sup>d</sup>	570	180	17	450	9700*	NA	NA	ND<330
01/27/00	17,000	2500 <sup>b</sup>	2200	250	490	1800	9100	2200	ND	ND	NA
05/25/00	12,000 <sup>a</sup>	2900 <sup>d</sup>	2400	180	480	930	8900	ND<250	ND	ND	NA
09/14/00	7600 <sup>a</sup>	NA	1700	63	280	330	12,000	ND<250	ND	ND	NA
12/07/00	2300 <sup>a</sup>	NA	330	9.6	40	14	25,000	4500	ND	ND	NA
04/17/01	4400 <sup>a</sup>	NA	1000	19	210	140	13,000	2400	ND	ND	NA
07/18/01	4400 <sup>a</sup>	NA	920	16	150	56	15,000	ND<1700	ND	ND	NA
10/30/01	3000 <sup>a</sup>	NA	350	9.2	65	9.3	22,000	ND<5000	ND	ND	ND<1000
01/30/02	3500 <sup>a</sup>	NA	480	21	120	95	2700	ND<500	ND	ND	NA
05/22/02	2800 <sup>a</sup>	NA	740	9.2	210	32	4900	ND<1000	ND	ND	ND<100
08/28/02	3000 <sup>a</sup>	NA	620	9.5	120	5.1	19,000	ND<5000	ND	ND	ND<500
11/27/02	1500 <sup>a</sup>	NA	ND<200	ND<200	ND<200	ND<200	11,000	ND<2000	ND <sup>e</sup>	ND	ND<200
02/12/03	3400 <sup>a</sup>	NA	970	40	69	260	12,000	ND<2000	ND	ND	ND<200
05/29/03	2400 <sup>a</sup>	NA	500	17	91	95	11,000	ND<2500	ND	ND	ND<250
08/26/03	4200 <sup>a</sup>	NA	870	13	140	45	29,000	ND<10K	ND	ND	NA
02/27/04	3600 <sup>a</sup>	NA	660	36	99	200	12,000	ND<2500	ND	ND	NA
05/27/04	2700 <sup>a</sup>	NA	580	8.3	86	16	22,000	ND<5000	ND	ND	NA
08/27/04	2800 <sup>a</sup>	NA	550	49	52	64	17,000	ND<5000	ND	ND	NA
12/17/04	2500 <sup>a</sup>	NA	880	10	84	19	7800	ND<1700	ND	ND	NA
03/30/05	9100 <sup>a</sup>	NA	1300	37	360	150	14,000	4400	ND	ND	NA

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Well ID	Date Sampled	TPHg µg/l	TPHD µg/l	Benzene µg/l	Toluene µg/l	Ethy-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-2 continued	06/22/05	990 *	NA	220	ND<5.0	6.2	31	6000	1900	ND	NA
	09/30/05	3700 *	NA	410	6.6	190	14	6500	1800	ND	NA
MW-3 †	10/12/99	36,000 *	2000 <sup>d</sup>	18,000	4200	990	3700	450,000*	NA	NA	ND<10K
	01/27/00	130,000	6200 <sup>b,b</sup>	33,000	11,000	2200	10,000	570,000	50,000	ND	NA
	05/25/00	110,000 *	4400 <sup>D</sup>	38,000	5100	1900	7400	690,000	ND<125K	ND	NA
	09/14/00	76,000 *	NA	28,000	1700	1200	3300	440,000	ND<125K	ND	NA
MW-4 ††	10/12/99	6000	860 <sup>d</sup>	10,000	370	300	350	280,000*	NA	NA	ND<10K
	01/27/00	57,000 *	1700 <sup>b,b</sup>	17,000	2900	910	2600	270,000	ND<25K	ND	NA
	05/25/00	54,000 *	1900 <sup>D</sup>	20,000	2000	1000	2300	290,000	ND<50K	ND	NA
	09/14/00	28,000 <sup>a,c</sup>	NA	9500	150	460	510	280,000	ND<25K	ND	NA
	12/07/00	41,000 *	NA	14,000	1900	830	1700	320,000	ND<25K	ND	NA
	04/17/01	38,000 *	NA	14,000	1200	750	1300	310,000	ND<25K	ND	NA
	07/18/01	40,000 *	NA	12,000	370	610	640	260,000	ND<25K	ND	NA
	09/14/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	NA
MW-5	12/06/00	ND<50	NA	ND<0.5	1.1	ND<0.5	1.9	ND<1.0	ND<25K	ND	NA
	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	NA
	07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	NA
	10/30/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	ND<1.0
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	0.95	ND<5.0	ND	ND	ND<0.5

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Well ID	Date Sampled	TPHg µg/l	TPHd, µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-5 continued	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	06/22/05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/30/05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/14/00	19,000 *	NA	2400	360	700	2300	17,000	ND>2500	ND	NA
	12/07/00	23,000 *	NA	3100	210	890	1800	16,000	ND>2500	ND	NA
04/17/01	20,000 *	NA	2200	320	440	1700	9000	ND<1250	ND	NA	NA
07/18/01	31,000 *	NA	3100	390	900	2500	11,000	ND<330	ND	NA	NA
10/30/01	25,000 *	NA	2200	190	710	1600	11,000	ND<1300	ND	ND>250	NA
01/30/02	20,000 *	NA	1100	460	500	2300	3000	ND<250	ND	NA	NA
05/22/02	13,000 *	NA	1500	310	460	1600	6800	ND<1000	ND	ND<100	ND
08/28/02	17,000 *	NA	2200	240	840	2100	10,000	ND>2500	ND	ND<250	ND
11/27/02	19,000 *	NA	2000	240	630	1500	9800	ND<1000	(1)	ND<100	ND
02/12/03	17,000 *	NA	1000	440	680	3300	3000	ND<1000	ND	ND<100	ND
05/29/03	14,000 *	NA	770	98	410	1400	4500	ND<500	ND	ND<50	ND
08/26/03	16,000 *	NA	1600	84	540	700	6900	ND<1200	ND	NA	NA

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-6 continued	02/27/04	11,000 *	NA	930	130	360	1600	3800	ND<500	ND	NA
	05/27/04	4000 *	NA	500	21	69	160	1800	ND<500	ND	NA
	08/27/04	13,000 *	NA	1100	65	370	490	3900	ND<1000	ND	NA
	12/17/04	17,000 *	NA	1300	85	560	1400	6100	ND<1000	ND	NA
	03/30/05	9500 *	NA	280	34	77	460	1600	590	ND	NA
	06/22/05	11,000 *	NA	740	100	150	480	4900	ND<1000	ND	NA
	09/30/05	13,000 *	NA	920	61	350	690	8200	ND<1000	ND	NA
	09/14/06	ND<50	NA	0.53	1.0	ND<0.5	1.4	1700	ND<250	ND	NA
	12/06/06	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2400	ND<250	ND	NA
	04/16/01	ND<50 *	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	180	ND<25	ND	NA
07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	910	ND<130	ND	NA
10/30/01	52 *	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.64	1800	ND<130	ND	ND<25
01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	430	ND<50	ND	NA
05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	370	ND<50	ND	ND<5.0
06/14/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	630	ND<100	ND	NA
08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	430	ND<50	ND	ND<5.0
11/27/02	ND<50	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	140	ND<50	ND <sup>(1)</sup>	ND<5.0
02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	160	ND<50	ND	ND<5.0
05/29/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	ND<5.0	ND	ND<0.5
08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<5.0	ND	NA

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Well ID	Date Sampled	TPHg µg/l	TPHD µg/l	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-9	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<100	ND	ND<0.5
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
11/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<100	ND	ND<0.5
02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND <sup>(1)</sup>	ND<0.5
05/29/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
05/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
12/17/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
09/30/05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	05/22/02	ND<50	NA	1.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	900	ND<100	ND
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	870	ND<120	ND
11/27/02	ND<50	NA	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	620	ND<100	ND <sup>(1)</sup>
02/12/03	61 <sup>a</sup>	NA	26	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1100	ND<170	ND
05/29/03	ND<50	NA	2.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1300	ND<330	ND
08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	950	ND<170	ND

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Well ID	Date Sampled	TPHg µg/l	TPHD µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-12	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	11/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND <sup>(1)</sup>	ND<0.5
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	05/27/04	ND<50	NA	0.57	ND<0.5	0.63	1.5	ND<0.5	ND<5.0	ND	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
MW-13**	12/17/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	09/30/05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	140	40	ND<2.5
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	93	37	ND<2.5
	11/27/02	ND<50	NA	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	71	20	(1)
02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	87	23	ND<2.0
	05/29/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	94	ND<25	ND<2.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	64	32	ND

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Well ID	Date Sampled	TPHg µg/l	TPHd, µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-13** continued	11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	57	23	ND
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	90	26	ND
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	16	ND
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	77	29	ND
	06/22/05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/30/05	ND<50	NA	ND<0.5	0.50	ND<0.5	1.0	81	31	ND	NA
	06/14/02	63 <sup>f</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	170	ND<25	ND
MW-14**	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	320	ND<100	ND
	10/27/02	ND<50	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	150	ND<50	(1)
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	260	ND<50	ND
	05/29/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	460	ND<100	ND
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	460	ND<120	ND
	11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	310	ND<100	ND
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	350	ND<100	ND
MW-15	08/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	210	ND<50	ND
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	130	ND<25	ND
	06/22/05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/30/05	ND<50	NA	ND<0.5	0.56	ND<0.5	1.1	94	ND<17	ND	NA
	08/27/04	15,000 <sup>g,i</sup>	NA	3700	1300	140	810	10,000	ND<2000	ND	NA
	12/17/04	18,000 <sup>g</sup>	NA	4500	1400	240	1000	13,000	2200	ND	NA
	03/30/05	78,000 <sup>g</sup>	NA	15,000	10,000	1500	6300	20,000	9100	ND	NA

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Well ID	Date Sampled	TPHg µg/l	TPHd, µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-15 continued	06/22/05	79,000 *	NA	14,000	10,000	1400	5600	22,000	ND<5000	ND	NA
	09/30/05	91,000 *	NA	17,000	11,000	1500	6700	28,000	ND<5000	ND	NA
MW-16	08/27/04	13,000 *	NA	2700	950	62	1100	28,000	ND<5000	ND	NA
	12/17/04	32,000 *	NA	6400	2200	690	3300	48,000	ND<10,000	ND	NA
	03/30/05	67,000 *	NA	8600	640	750	2600	45,000	16,000	ND	NA
	06/22/05	62,000 *	NA	12,000	5100	1300	6200	45,000	ND<10,000	ND	NA
	09/30/05	45,000 *	NA	9600	2800	930	4200	63,000	ND<10,000	ND	NA
	08/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	250	ND<50	ND	NA
	12/17/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1200	ND<170	ND	NA
MW-17	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	23	7.5	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	20	ND<5.0	57 <sup>(3)</sup>	NA
	09/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22	ND<5.0	ND	NA
	08/27/04	28,000 *	NA	4500	760	690	1500	21,000	ND<5000	ND	NA
	12/17/04	27,000 *	NA	5200	1100	1100	2200	29,000	ND<10,000	ND	NA
MW-18	03/30/05	19,000 *	NA	3600	620	550	820	25,000	6500	ND	NA
	06/22/05	14,000 *	NA	2100	460	480	880	19,000	ND<5000	ND	NA
	09/30/05	9900 *	NA	2000	220	430	440	32,000	ND<5000	ND	NA

**Table 2. Monitoring Well Groundwater Sample Analytical Results: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Notes	
TPHg:	Total petroleum hydrocarbons as gasoline
TPHd:	Total petroleum hydrocarbons as diesel
MTBE:	Methyl tert-butyl ether; analyzed by Analytical Method SW8260B unless noted otherwise
*	MTBE by EPA method 8020
**:	Deep monitoring wells. MW-13 is next to shallow well MW-10; MW-14 is next to shallow well MW-7
µg/l:	Micrograms per liter
ND:	Not detected above the reporting limit
NA:	Not analyzed
K:	Value x1000
†:	MW-3 was destroyed during December 2000 over-excavation
††:	MW-4 was destroyed during October 2001 over-excavation
a:	Unmodified or weakly modified gasoline is significant
b:	Diesel range compounds are significant; no recognizable pattern
c:	Gasoline range compounds are significant; no recognizable pattern
d:	Gasoline range compounds are significant
D:	One to a few isolated non-target peaks present
f:	Liquid sample that contains greater than ~1 vol. % sediment
i:	Well was dry on this date
x:	Samples were also analyzed for volatile organics, full spectrum scan, by Analytical Method SW8260B. In addition to the results reported above, the following analytes were detected: MW-6: 130 µg/l naphthalene; 780 µg/l 1,2,4-trimethylbenzene; and 220 µg/l 1,3,5-trimethylbenzene. MW-13: 1.0 µg/l carbon disulfide. MW-14: 180 µg/l 2-butanone (MEK)
(1):	Sample analyzed for MTBE by Analytical Method SW8021B/8015Cm
(2):	Ethanol
(3):	

**Table 3. Water-Supply Wells, Test Wells and Surface Water Sample Analytical Results  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg, µg/l	TPHd, µg/l	Benzene, µg/l	Toluene, µg/l	Ethyl-benzene, µg/l	Xylenes, µg/l	MTBE, µg/l (8260)	Other Oxygenates, µg/l	Lead Scavengers, µg/l
DW-1 (Domestic Water Well)	09/07/99	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	NA	NA
	01/27/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	05/25/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	09/13/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	12/07/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	04/16/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	07/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
	01/29/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	11/26/02 *	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	05/29/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	11/25/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	05/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	12/16/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	NA

**Table 3. Water-Supply Wells, Test Wells and Surface Water Sample Analytical Results  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg, µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl- benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
<b>DW-1 continued</b>	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	<b>09/30/05</b>	<b>ND&lt;50</b>	<b>NA</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND</b>	<b>NA</b>
<b>LHW-1 (Water-supply Well)</b>	05/25/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND
	12/07/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND
<b>LHW-2 (Water-supply Well)</b>	05/25/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	<b>09/30/05</b>	<b>ND&lt;50</b>	<b>NA</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND</b>	<b>NA</b>
	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND
<b>LHW-1/LHW-2 (Ledford House Water-supply Wells</b>	07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	11/25/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
05/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA	

**Table 3.** Water-Supply Wells, Test Wells and Surface Water Sample Analytical Results  
Former Albion Shell, 3300 N. Highway 1, Albion, California

Sample ID	Sample Date	TPHg, µg/l	TPHd, µg/l	Benzene, µg/l	Toluene, µg/l	Ethyl-benzene, µg/l	Xylenes, µg/l	MTBE, µg/l (8260)	Other Oxygenates, µg/l	Lead Scavengers, µg/l
LHW-1/LHW-2 (Lefford House Water-supply Wells) continued	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	12/16/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	05/25/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	LHW-3 (Water-supply Well)									
LHP-1 LHP (Lefford House Pond)	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	09/07/99	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5 *	NA	NA
WP-1										
WP-2	01/27/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-3	05/25/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-4	09/13/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-5	12/07/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-6	04/16/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-7	07/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-8	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
WP-9	01/29/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	ND<0.5

**Table 3. Water-Supply Wells, Test Wells and Surface Water Sample Analytical Results  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHD µg/l	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
WP	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
WP	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
WP	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
WP	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
DP-1	09/07/99 <sup>1</sup>	56 <sup>f</sup>	100 <sup>b</sup>	570	180	17	450	14	ND	ND<1.0
DP-2	01/27/00 <sup>2</sup>	140 <sup>a</sup>	ND<50	24	19	1.9	11	270	ND	ND<10
DP-3	05/25/00 <sup>2</sup>	ND<50	ND<5.0	4.7	3.2	ND<0.5	3.3	420	ND	NA
DP-4	09/13/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	ND	NA
DP-5	12/07/00	ND<50	NA	0.62	ND<0.5	ND<0.5	ND<0.5	230	ND	NA
DP-6	04/16/01	ND<50	NA	0.69	ND<0.5	ND<0.5	ND<0.5	160	ND	NA
DP-7	07/17/01	ND<50	NA	0.68	ND<0.5	ND<0.5	ND<0.5	52	ND	NA
DP-8	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	ND	ND<0.5
DP-9	01/29/02	120 <sup>a</sup>	NA	22	20	2.5	14	170	ND	NA
DP	05/22/02	ND<50	NA	1.8	0.55	ND<0.5	0.79	97	ND	ND<1.7
DP	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	100	ND	ND<2.5
DP	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	ND	ND<0.5
DP	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	63	ND	ND<1.0
DP	11/25/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	220	ND	ND
DP	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	NA
DP	05/27/04	ND<0.5	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	NA

**Table 3. Water-Supply Wells, Test Wells and Surface Water Sample Analytical Results  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
DP	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
DP	12/16/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
DP	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
DP	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
DP	09/30/05	<b>ND&lt;50</b>	NA	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND</b>	<b>NA</b>
DPI-1 (Duck Pond Influent)	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.1	ND
	01/29/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
DPE-1 (Duck Pond Effluent)	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	120	ND
SD-1 (Storm Drain Ditch)	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
TW-3 (Smith Property Test Well Destroyed 10/02)	10/31/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
TW-4 (Smith Property Test Well Destroyed 10/02)	07/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
	01/29/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.1	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5

**Table 3.** Water-Supply Wells, Test Wells and Surface Water Sample Analytical Results  
Former Albion Shell, 3300 N. Highway 1, Albion, California

**Table 3. Water-Supply Wells, Test Wells and Surface Water Sample Analytical Results  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethy-benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
SW-2 (Duck Pond Drainage) continued	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
SW-3 (Northwest Drainage)	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/27/02 <sup>3</sup>	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
SW-4 (Northwest Drainage)	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	11/25/03	ND<50 <sup>i</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	05/27/04	ND<50 <sup>i</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	06/22/05	ND<50 <sup>i</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
PE-1 (Duck Pond Drain Pipe)	07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<1.0	ND	NA

**Table 3. Water-Supply Wells, Test Wells and Surface Water Sample Analytical Results  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Notes	
TPHg:	Total petroleum hydrocarbons as gasoline
TPHd:	Total petroleum hydrocarbons as diesel
MTBE:	Methyl tert-butyl ether; analyzed by Analytical Method SW8260B unless noted otherwise
µg/l:	Micrograms per liter
ND:	Not detected above the reporting limit
NA:	Not analyzed
NS:	Not sampled
a:	Unmodified or weakly modified gasoline is significant
b:	Diesel range compounds are significant; no recognizable pattern
f:	One to a few isolated peaks present, identified as hexanal and pentanal (not gasoline)
i:	Liquid sample that contains greater than ~2 vol. % sediment
j:	No recognizable pattern
*	MTBE by EPA Method 8021B/8015Cm
1:	Sample DP-1 also analyzed for volatile organics, full spectrum scan, by Analytical Method SW8260B; results were 6.7 µg/l carbon disulfide, as well as non-target peaks identified as hexanal and pentanal
2:	Samples DP-2 and DP-3 were also analyzed for volatile organics, full spectrum scan, by Analytical Method SW8260B. Except for MTBE, benzene, toluene and xylene results reported above, results were ND.
3:	Surface water was not present and samples were not collected from the duck pond or northwest drainage areas on August 27, 2002.
4:	Samples were also analyzed for volatile organics, full spectrum scan, by Analytical Method SW8260B. In addition to results reported above, 0.61 µg/l bromoform and 0.93 µg/l dibromochloromethane were detected in samples from LHW-1/LHW-2.
5:	Sample DP also analyzed for total organic carbon (TOC) by Method 5310C. Result was 6.53 milligrams per liter (mg/l); reporting limit was 1.00 mg/l.

**Table 4. Monitoring Well Groundwater Sample Analytical Results: Inorganic Anions and Dissolved Metals**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	Bromate mg/l	Bromide mg/l	Hexachrome µg/l	Molybdenum µg/l	Selenium µg/l	Vanadium µg/l
MW-2	08/27/04	ND<0.040	1.0	ND<0.2	0.67	ND<0.5	0.95
	12/17/04	ND<0.1	0.80	ND<0.2	0.57	ND<0.5	ND<0.5
	03/30/05	ND<0.005	0.91	ND<0.2	0.59	ND<0.5	0.86
	06/22/05	0.024	0.74	ND<0.2	ND<0.5	ND<0.5	0.63
	09/30/05	<b>ND&lt;0.005</b>	<b>1.3</b>	<b>ND&lt;0.2</b>	<b>0.89</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-6	08/27/04	ND<0.040	1.3	ND<0.2	ND<0.5	ND<0.5	ND<0.5
	12/17/04	ND<0.1	1.4	ND<0.2	ND<0.5	ND<0.5	ND<0.5
	03/30/05	ND<0.005	0.59	ND<0.2	ND<0.5	ND<0.5	ND<0.5
	06/22/05	ND<0.005	0.97	ND<0.2	ND<0.5	ND<0.5	ND<0.5
	09/30/05	<b>ND&lt;0.005</b>	<b>0.88</b>	<b>ND&lt;0.2</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-15	08/27/04	ND<0.040	2.2	ND<0.2	7.1	0.73	1.4
	12/17/04	ND<0.1	1.4	ND<0.2	3.8	ND<0.5	0.70
	03/30/05	ND<0.005	1.6	ND<0.2	0.83	0.85	0.72
	06/22/05	0.054	1.6	ND<0.2	0.54	0.89	ND<0.5
	09/30/05	<b>ND&lt;0.005</b>	<b>1.5</b>	<b>ND&lt;0.2</b>	<b>0.68</b>	<b>0.82</b>	<b>ND&lt;0.5</b>
MW-16	08/27/04	ND<0.040	2.0	ND<0.2	15	1.0	6.5
	12/17/04	ND<0.1	1.2	ND<0.2	6.1	1.2	1.5
	03/30/05	ND<0.005	0.92	ND<0.2	3.6	1.5	ND<0.5
	06/22/05	0.056	0.77	ND<0.2	1.5	1.6	ND<0.5
	09/30/05	<b>ND&lt;0.005</b>	<b>0.73</b>	<b>ND&lt;0.2</b>	<b>1.9</b>	<b>0.78</b>	<b>ND&lt;0.5</b>
MW-17	08/27/04	ND<0.040	0.24	ND<0.2	1.4	ND<0.5	0.87
	12/17/04	ND<0.1	0.26	ND<0.2	1.4	0.69	0.62
	03/30/05	ND<0.005	0.21	0.62	2.1	0.86	0.85
	06/22/05	ND<0.005	0.14	0.46	2.3	0.77	1.0
	09/30/05	<b>ND&lt;0.005</b>	<b>0.13</b>	<b>ND&lt;0.2</b>	<b>1.9</b>	<b>ND&lt;0.5</b>	<b>0.68</b>
MW-18	08/27/04	ND<0.040	1.3	ND<0.2	0.68	0.53	ND<0.5
	12/17/04	ND<0.1	1.5	ND<0.2	0.60	0.68	ND<0.5
	03/30/05	ND<0.005	1.4	ND<0.2	ND<0.5	0.56	ND<0.5
	09/30/05	<b>ND&lt;0.005</b>	<b>1.5</b>	<b>ND&lt;0.2</b>	<b>0.57</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>

**Table 4. Monitoring Well Groundwater Sample Analytical Results: Inorganic Anions and Dissolved Metals**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Page 2 of 2**

Well ID	Date Sampled	Bromate mg/l	Bromide mg/l	Hexachrome µg/l	Molybdenum µg/l	Selenium µg/l	Vanadium µg/l
WQO	--	NE	NE	21	35	35	50

mg/l: Milligrams per liter

µg/l: Micrograms per liter

ND: Not detected above the reporting limit

WQO: Water Quality Objective (Central Valley Regional Water Quality Control Board, August 2003)

NE: Not established

0302\table 4

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

Page 1 of 4

Well ID	Date	DTW (feet)	DO (mg/l)	ORP (mV)	Temperature (°F)	pH
MW-1	08/26/04 *	10.91	0.12	166	56.5	6.91
	03/30/05 *	3.27	0.88	59	54.4	8.42
MW-2 (Downgradient from Trench RT-1)	08/27/04 *	9.43	0.90	152	59.1	7.29
	11/3/04	—	0.65	—	63.3	—
	12/17/04 *	7.70	0.43	150	60.1	7.79
	01/21/05	—	0.17	—	56.1	—
	02/15/05	—	0.18	—	55.8	—
	03/02/05	—	0.30	—	57.4	—
	03/30/05 *	1.04	1.59	121	57.4	6.72
	04/29/05	—	0.19	—	57.2	—
	05/31/05	—	0.14	—	57.5	—
	06/22/05 *	2.47	0.60	130	56.6	6.18
	08/31/05	—	0.14	—	61.7	—
	09/30/05 *	6.70	0.23	—	60.6	6.31
MW-5	08/26/04 *	12.92	0.20	160	61.3	6.50
	03/30/05 *	4.72	0.22	50	56.4	8.78
MW-6 (Downgradient from Trench RT-2)	08/27/04 *	12.17	3.18	120	63.4	6.83
	11/3/04	—	0.50	—	60.3	—
	12/17/04 *	7.08	0.44	120	59.4	6.61
	01/21/05	—	0.17	—	56.7	—
	02/15/05	—	0.17	—	56.3	—
	03/02/05	—	0.19	—	56.1	—
	03/30/05 *	6.18	2.07	38	56.8	7.57
	04/29/05	—	0.18	—	57.2	—
	05/31/05	—	0.13	—	57.5	—
	06/22/05 *	7.19	0.86	51	61.9	7.14
	08/31/05	—	0.14	—	59.9	—
	09/30/05 *	9.86	0.53	—	62.8	5.72

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

Well ID	Date	DTW (feet)	DO (mg/l)	ORP (mV)	Temperature (°F)	pH
MW-7 (Shallow well paired with MW-14)	08/26/04 *	9.96	4.73	65	57.0	9.41
	03/30/05 *	3.99	2.99	124	53.8	7.05
	09/30/05 *	7.47	4.21	—	58.7	6.09
MW-8	08/26/04 *	17.28	7.00	170	56.6	8.01
	03/30/05 *	7.86	6.80	103	56.8	7.90
MW-9	08/26/04 *	9.66	1.72	145	57.2	7.28
	12/17/04 *	9.25	1.71	140	55.1	7.41
	03/30/05 *	4.29	2.80	83	53.8	7.47
	06/22/05 *	5.07	1.87	183	57.3	5.59
MW-10 (Shallow well paired with MW-13)	08/26/04 *	9.19	0.10	124	57.5	8.27
	03/30/05 *	5.22	0.17	77	54.0	8.21
	09/30/05 *	7.50	0.19	—	58.3	6.66
MW-11	08/26/04 *	10.24	1.09	184	58.2	7.76
	12/17/04 *	6.68	1.30	170	54.6	7.75
	03/30/05 *	4.56	6.87	134	56.1	7.40
	06/22/05 *	5.34	4.17	193	58.2	6.02
MW-12	08/26/04 *	13.96	1.20	178	59.1	7.38
	12/17/04 *	11.20	0.88	179	55.9	7.55
	03/30/05 *	7.81	1.60	135	58.3	7.73
	06/22/05 *	6.85	1.99	207	59.6	6.13
MW-13 (Deep well paired with MW-10)	08/26/04 *	8.81	4.66	76	59.6	10.97
	03/30/05 *	4.70	6.53	30	54.9	11.48
	09/30/05 *	7.08	2.14	—	58.6	12.16
MW-14 (Deep well paired with MW-7)	08/26/04 *	12.51	1.59	8	56.9	11.47
	03/30/05 *	7.41	3.65	35	54.3	11.72
	09/30/05 *	10.80	1.48	—	57.1	7.10

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

Well ID	Date	DTW (feet)	DO (mg/l)	ORP (mV)	Temperature (°F)	pH
MW-15 (Cross gradient from Trench RT-1)	08/27/04 *	7.41	4.00	166	57.4	7.55
	12/17/04 *	8.40	2.13	165	56.8	7.51
	03/30/05 *	4.70	0.37	90	55.5	6.50
	05/31/05	—	0.15	—	55.5	—
	06/22/05 *	2.85	1.61	33	57.3	6.73
	08/31/05	—	0.15	—	59.8	—
	09/30/05 *	4.31	0.60	—	58.5	6.35
MW-16 (Upgradient from Trench RT-1)	08/27/04 *	7.47	4.59	174	61.3	7.32
	11/3/04	—	0.65	—	60.2	—
	12/17/04 *	4.74	0.19	130	60.6	7.51
	01/21/05	—	0.18	—	56.1	—
	02/15/05	—	0.19	—	55.9	—
	03/02/05	—	0.29	—	56.4	—
	03/30/05 *	1.50	0.22	0	57.1	6.86
	04/29/05	—	0.22	—	57.7	—
	05/31/05	—	0.15	—	57.6	—
	06/22/05 *	1.82	0.30	11	60.1	6.92
	08/31/05	—	0.14	—	60.9	—
	09/30/05 *	5.80	0.24	—	61.0	6.34
MW-17 <sup>†</sup> (Within UST excavation backfill)	01/21/05	—	0.88	—	57.5	—
	02/15/05	—	0.94	—	58.1	—
	03/02/05	—	3.21	—	56.9	—
	03/30/05 *	2.01	0.99	177	57.9	7.47
	04/29/05	—	0.15	—	59.9	—
	05/31/05	—	1.01	—	60.5	—
	06/22/05 *	3.06	0.43	101	63.5	7.97
	08/31/05	—	1.11	—	61.3	—
	09/30/05 *	5.30	0.10	—	65.2	7.07

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

Well ID	Date	DTW (feet)	DO (mg/l)	ORP (mV)	Temperature (°F)	pH
MW-18 (Upgradient from Trench RT-2)	01/21/04	—	0.15	—	55.9	—
	02/15/05	—	0.17	—	56.9	—
	03/02/05	—	0.23	—	57.4	—
	03/30/05 *	2.55	0.21	28	57.4	6.72
	04/29/05	—	0.18	—	58.4	—
	05/31/05	—	0.29	—	58.9	—
	06/22/05 *	3.35	0.43	-24	61.1	7.00
	08/31/05	—	0.31	—	60.7	—
	09/30/05 *	4.34	0.25	—	64.1	5.92

DTW: Depth to water

DO: Dissolved oxygen

ORP: Oxidation reduction potential

mg/l: Milligrams per liter

mV: Millivolts

°F: Degrees Fahrenheit

\*: Combined O&M and quarterly sampling event; where possible, readings taken after last well volume purged

RT-1: North remediation trench

RT-2: South remediation trench

†: MW-17 is located in the pea-gravel backfill of the December 2000 excavation

**Table 6. Ozone System Operations and Maintenance Log**  
**Former Albion Shell, 3300 Highway 1 North, Albion, California**

**Page 1 of 3**

<b>Panel</b>	<b>Date</b>	<b>Comments</b>
T-1	08/27/04 *	Pre-ozone microsparging baseline measurements
	11/1-2/04	System startup
	11/3/04	Check system pressures; jumper relay wire installed; remove ozonator hose from bottom of panel
	11/12/04	Panel running; check for panel and sparge point leaks
	11/18/04	Panel running; check pressures
	12/16-17/04 *	System down; ozone sensor tripped; restart system; check meter
	01/21/05	System running; T1SP-4 grout/leak repaired
	02/15/05	Panel down (ozone switch); restart panel; check for leaks
	03/02/05	System bubbling at surface; reduced run times to 53.75% of original run time
	03/30/05 *	Panel running; check for leaks
	04/29/05	Panel running; vacuum and clean out panel, check pressures, tighten all electrical; reprogram run times to full run times
	05/31/05	System down; rebuild compressor; cleanup inlet, check pressures
	06/22/05 *	System running; dismantle compressor and replace piston; check pressures; clean out panel; replace main power switch
	08/31/05	System running; rewire panel for auto start-up (two transformers and relay); clean out intake and compressors
	09/30/05 *	System running; open and clean out compressor and intake. Needs new piston. Pressure check; check all wire connections.
T-2	08/27/04 *	Pre-ozone microsparging baseline measurements
	11/1-2/04	System startup
	11/3/04	Check system pressures; install relay wire; disconnect ozonator intake hose from bottom of panel
	11/12/04	Panel running; check for panel and sparge point leaks
	11/18/04	Panel running; check for panel and sparge point leaks
	12/16-17/04 *	System down and unplugged; check system clock and restart
	01/21/05	Panel running; low system pressures; replace #9 solenoid; clean intake tube; check pressures and for leaks

**Table 6. Ozone System Operations and Maintenance Log**  
**Former Albion Shell, 3300 Highway 1 North, Albion, California**

**Page 2 of 3**

<b>Panel</b>	<b>Date</b>	<b>Comments</b>
T-2 continued	02/15/05	System running (reported outage and system restart)
	03/02/05	System bubbling at surface; reduced run times to 52.38% of original run times
	03/30/05 *	System running; check for leaks
	04/29/05	System running; vacuum sediment from cabinet, reprogram timer to run 7 minutes run times on all sparge points
	05/31/05	System running; check system pressures, clean out inlet
	06/22/05 *	System running; dismantle compressor and replace piston; check pressures; clean out panel; replace main power switch; lower fan will need replacing (running slowly)
	08/31/05	System running; rewire panel for auto start-up (two transformers and relay); clean out intake and compressors
	09/30/05 *	System running; reprogram timer; open and clean out compressor and intake. Needs new piston. Pressure check; tighten all wire blocks.
EXC	11/03/04	3 <sup>rd</sup> day system check; check for leaks; jumper wire for relays installed; remove ozonator input hose from bottom of panel
	11/12/04	Panel running; check pressures and for leaks in panel and sparge points
	12/16-17/04 *	System down on 16th; ozone sensor tripped; restart system; check pressures and for leaks;
	01/21 & 01/24/05	System running on 01/21/05; repair ozone leaks and set boxes to final grade; re-grout SP-6; replace bottom fan short
	02/15/05	Panel running (reported outage and system restart); clean station #5 solenoid switch; station #4 line leak between panel and SP; reprogram panel to 0 run time on station #4; order replacement hose
	03/02/05	System bubbling at surface; reduced run times to 52% of original run time; leak in SP-2 into secondary containment - reduce run time to 0 (from 2/15/05)
	03/30/05 *	System running; adjust ozone sensor; check for leaks; burnt wire to be replaced
	04/29/05	System down; rewire panel, reprogram timer to 10 minute run time on all sparge points except #4; leak in delivery line; clean out vacuum panel; solenoid sticking, clean out manifold
	05/31/05	System running; clean inlet tube, check pressures; turn up run times on 7 stations; maximum run times (11 minutes) on all stations except #4 (1 minute)

**Table 6. Ozone System Operations and Maintenance Log**  
**Former Albion Shell, 3300 Highway 1 North, Albion, California**

**Page 3 of 3**

<b>Panel</b>	<b>Date</b>	<b>Comments</b>
EXC continued	06/22/05 *	System down; ozone sensor out (reordered); dismantle compressor and replace piston; check pressures; station #4 (SP-2) turned off - all others at 11 minute run times; no ozone nor FHCs detected in ozone meter station and deli building
	08/31/05	System down; burned wires (main power switch at wire block [GFI neutral] and wire block to the right of latch relay [red wire]); replace large block and order small block by latch; splice red wire temporarily; rewire panel for auto start-up (two transformers and relay)
	09/30/05 *	System running; open and clean out compressor and intake. Needs new piston. Pressure check; check all wire blocks. Replace far right wire block, lower fan, and red light bulb in door. Needs intake filter.

Note

\*: Combined O&M and quarterly sampling event

0302/table 6 O&M

## **Appendix A**

### **Groundwater Field Logs**

## DAILY FIELD RECORD

Page 1 of \_\_\_\_\_

Project and Task Number:	0302	Date:	9/30/05
Project Name:	Albion Shell	Field Activity:	G.W.M
Location:	3300 N. Hwy 1	Weather:	Sunny, cool, windy
Time of OVM Calibration:			

Name	Company	Time In	Time Out

DRUM ID	DESCRIPTION OF DRUMS, TANKS, AND CONTAINERS	LOCATION

TIME			
6:00	Load up for field	ORDER: 7, 13, 14, 17, 10, 2, 6, 18, 16, 15	
7:30	Depart from office		
10:30	arrive on site, locate + open all wells, turn off ozone panel		
11:26	Pre DTW -	MW-1 - 9.27	MW-11 - 7.31
2:30	Begin purging wells in order	MW-2 - 6.70	MW-12 - 11.84
3:00	wells, 7, 13, 14, 17 sampled	MW-5 - 12.73	MW-13 - 7.08
3:15	Remaining wells allowed to recharge	MW-6 - 9.86	MW-14 - 10.80
3:45	Remaining wells sampled	MW-7 - 7.47	MW-15 - 4.31
4:45	close & lock all wells, clean up site.	MW-8 - 15.28	MW-16 - 5.80
-	turn ozone panels back on	MW-9 - 7.76	MW-17 - 5.30
5:30	Return to office	MW-10 - 7.50	MW-18 - 4.34

USED HYDAR, NO ORP READING. THIS EVENT

## FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT				
Project No: 0302		Field point name: MW-2						
Global ID: T0604500291		Well depth from TOC: 15'						
Project location: 3300 N. Hwy 1, Albion, CA		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:						
Date: 9/30/05		Product level from TOC: ND						
Time: 10:30		Water level from TOC: 6.70						
Recorded by: R. Johnson		Screened interval: 5' - 20'						
Purge time (duration):		Well elevation (TOC): 152.34						
WEATHER								
Wind: 0-5 mph		Precip. in last 5 days: N						
VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING								
<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 8.3		<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.4					
<input type="checkbox"/> 4" well = 0.66 gal/ft		<input type="checkbox"/> " well = gal/ft	Total gallons removed: 3.9	Well volumes removed: 2				
CALIBRATION								
Parameter	Time	Calibration	Before Sampling	Time				
EC:								
FIELD MEASUREMENTS								
Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance	
3.42	6.45	1,32	60.8	-	.22	1/ 1.4	low turb	
3.43	6.31	.93	60.6	-	.23	2/ 2.8	No smell	
						3/ 4.2	Mild "HC" odor	
						1		
Notes: Well dry c 3.7								
Water level after purging below TOC:			80% of original water level below TOC: 9					
Water level before sampling below TOC: 6.8								
Appearance of sample:			Time: 4:00					
<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-4	Type: Submersible	GPM: 0-2			
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse					
Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
EPA Method:								
Other:	Boron, DT, Branates, Vanadium, Selenium, Molybdenum, Arsenic							
LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical		<input type="checkbox"/> Other:					

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-6		
Global ID: T0604500291		Well depth from TOC: 15'		
Project location: 3300 N. Hwy 1, Albion, CA		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 9/30/05		Product level from TOC: ND		
Time: 10:30		Water level from TOC: 9.86		
Recorded by: R. Johnson		Screened interval: 5'-15'		
Purge time (duration):		Well elevation (TOC): 144.64		

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
---------------	---------------------------

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 5.14	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: .9
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 2.0 Well volumes removed: 2

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
3:53	5.78	.54	62.6	-	1.65	1/ .9	Low turb
3:54	5.72	.58	62.8	-	.53	2/ 1.8	No selen
	-	-	-	-	-	3/ 2.7	Weak "HC" odor

Notes: Well dry @ 2.0 gal

Water level after purging below TOC: 80% of original water level below TOC: 9

Water level before sampling below TOC: 10:00 Time: 4:15

Appearance of sample:

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:  Beryllium  Bremerite  Vanadium  Selenium  Molybdenum  Hexachromium

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-7		
Global ID: T0604500291		Well depth from TOC: 15'		
Project location: 3300 N. Hwy 1, Albion, CA		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 7/30/05		Product level from TOC: ND		
Time: 10:30		Water level from TOC: 7.417		
Recorded by: R. Johnson		Screened interval: 5'-15'		
Purge time (duration):		Well elevation (TOC): 142.10		

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 7.53	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.3
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 3.9. Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	BC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
2:36	6.13	1.32	59.8	-	4.12	1/ 1.3	Low turb
2:41	<.34	1.17	59.0	-	4.08	2/ 2.6	No silt
2:43	6.09	1.21	58.7	-	4.21	3/ 3.1	No odor

Notes:	

Water level after purging below TOC:	80% of original water level below TOC:
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Water level before sampling below TOC:	8.36	Time: 3:03
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Appearance of sample:		
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1 Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2
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Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse			
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Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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Method:							
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DRY:	<input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:
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FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-10			
Global ID: T0604500291	Well depth from TOC: 18'			
Project location: 3300 N. Hwy 1, Albion, CA	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 9/30/05	Product level from TOC: ND			
Time: 9:00	Water level from TOC: 7.50			
Recorded by: R. Johnson	Screened interval: 5' - 15'			
Purge time (duration):	Well elevation (TOC): 127.13			

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 10.5	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.8
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 5.4 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
3:30	6.06	.66	59.2	-	.20	1/ 1.8	Low turb
3:31	6.65	.60	58.8	-	.70	2/ 3.6	N-slow
3:32	6.66	.62	58.3	-	.19	3/ 5.4	weak "sulfur" odor

Notes:	
Water level after purging below TOC:	80% of original water level below TOC:
Water level before sampling below TOC:	7.7

Time: 3:45

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> 7 oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:							
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Other:						
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LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:
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FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: ML-B		
Global ID: T0604500291		Well depth from TOC: 24'		
Project location: 3300 N Hwy 1, Alber, CA		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 9/30/05		Product level from TOC: ND		
Time: 16:30		Water level from TOC: 7.08		
Recorded by: R. Johnson		Screened interval: 19-24'		
Purge time (duration):		Well elevation (TOC): 126.71		

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 16.92	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.7
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 2.9

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC <del>X 1000</del>	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
2:53	12.16	.73	58.6	-	2.14	1/ 2.9	low turb
	-	-	-	-	-	2/ 5.8	No odor
	-	-	-	-	-	3/ 8.7	No sullen
						/	

Notes: Well dry @ 3.8 gal

Water level after purging below TOC:	80% of original water level below TOC:
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Water level before sampling below TOC:	7.9
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Appearance of sample:	Time: 3:10
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<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:								
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Other:								
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LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT			
Project No: 0302		Field point name: MW-14					
Global ID: T0604500291		Well depth from TOC: 34.5					
Project location: 3300 N. Hwy 1, Albion, CA		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:					
Date: 7/30/05		Product level from TOC: ND					
Time: 10:30		Water level from TOC: 10.80					
Recorded by: R. Johnson		Screened interval: 30 - 34.5'					
Purge time (duration):		Well elevation (TOC): 141.67					
WEATHER							
Wind: 0-5 mph		Precip. in last 5 days: N					
VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING							
<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 23.7		<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 4				
<input type="checkbox"/> 4" well = 0.66 gal/ft		<input type="checkbox"/> " well = gal/ft	Total gallons removed: 12	Well volumes removed: 3			
CALIBRATION							
Parameter	Time	Calibration	Before Sampling	Time			
EC:							
FIELD MEASUREMENTS							
Time	pH	EC <small>K<sub>1000</sub></small>	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
3:00	12.45	.81	57.6	-	1.52	1/ 4	Low turb
3:03	7.14	.84	57.4	-	3.17	2/ 8	No smell
3:06	7.18	.78	57.1	-	1.48	3/ 13	No odor
						1	
Notes:							
Water level after purging below TOC:				80% of original water level below TOC: 9			
Water level before sampling below TOC: 10.8				Time: 3:20			
Appearance of sample:							
<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2		
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse				
Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> QTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs
EPA Method:							<input type="checkbox"/> Nitrates
Other: <input type="checkbox"/>							
LABORATORY: <input checked="" type="checkbox"/> McCampbell Analytical				<input type="checkbox"/> Other:			

**EDD CLARK & ASSOCIATES, INC.**  
ENVIRONMENTAL CONSULTANTS

**FIELD LOG**

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302				Field point name: MW-15
Global ID: T0604500291				Well depth from TOC: 15'
Project location: 3300 N Hwy 1, Albion, CA				Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:
Date: 7/30/05				Product level from TOC: ND
Time: 9:00				Water level from TOC: 4.31
Recorded by: R. Johnson				Screened interval: 5'-13'
Purge time (duration):				Well elevation (TOC): 148.16

**WEATHER**

Wind: 0-5 mph	Precip. in last 5 days: N
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**VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING**

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 10.69	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.8
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 3.8 Well volumes removed: 2

**CALIBRATION**

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

**FIELD MEASUREMENTS**

Time	pH	EC <i>x 1000</i>	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
4:28	6.04	1.49	59.1	-	.55	1/ 1.8	Low turb
4:30	6.75	1.54	58.5	-	.60	2/ 3.6	No shear
	-	-	-	-	-	3/ 5.4	Weak "HC" odor

Notes: LCN dry e 3.8 gal

Water level after purging below TOC: 80% of original water level below TOC: 9

Water level before sampling below TOC: 9.5 Time: 5:00

Appearance of sample: GPM: 0-2

Bailer: Type: GPM: Pump: ES-40 Type: Submersible GPM: 0-2  
 Dedicated: Type: GPM: Decontamination method: Liquinox wash, double rinse

Sample analysis:  TPHg  TPHd  TPH  BTEX  oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:  Bism 10E  bromate  vanadium  selenium  molybdenum  hexachromium

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-16			
Global ID: T0604500291	Well depth from TOC: 15'			
Project location: 3300 N Hwy 1, Alton, CA	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 9/30/05	Product level from TOC: ND			
Time: 9:00	Water level from TOC: 5.80			
Recorded by: R. Johnson	Screened interval: 5'-15'			
Purge time (duration):	Well elevation (TOC): 153.52			

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 10.2	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.7
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 5.1 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC <small>x 10<sup>-6</sup></small>	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
4:15	6.17	1.05	62.1	-	.38	1/ 1.7	low turb
4:16	6.18	.95	61.7		.30	2/ 3.4	No shear
4:18	6.34	1.09	61.0		.24	3/ 5.1	"HC" odor - strong

Notes:

Water level after purging below TOC: 80% of original water level below TOC: 5

Water level before sampling below TOC: 5.8

Appearance of sample: Time: 4:45

Bailer: Type: GPM:  Pump: ES-46 Type: Submersible GPM: 0-2

Dedicated: Type: GPM: Decontamination method: Liquinox wash, double rinse

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:  Bromide  Bromate  Vanadium  Selenium  Molybdenum  Hexachromium

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-17		
Global ID: T0604500291		Well depth from TOC: 13'		
Project location: 3300 N Hwy 1, Alber, CA		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 7/30/05		Product level from TOC: N.D.		
Time: 10:30		Water level from TOC: 5.30		
Recorded by: R. Johnson		Screened interval: 5' - 13'		
Purge time (duration):		Well elevation (TOC): 157, 51		

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 7.7	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.7
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 3.7 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC X1000	Temp °F	ORP mV	D O mg/l 24	Case Volume gal.	Appearance
3:16	6.49	.88	65.2	-	1.75	1/ 1.3	Low turb
3:18	6.90	.77	65.2	-	.15	2/ 2.6	No shear
3:20	7.07	.77	65.2	-	.10	3/ 3.9	No odor

Notes:	80% of original water level below TOC:
Water level after purging below TOC:	5.4

Water level before sampling below TOC:	5.4	Time: 3:30
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Appearance of sample:	<input type="checkbox"/> Bailer: Type: GPM: ES-40	Type: Submersible	GPM: 0-2
	<input type="checkbox"/> Dedicated: Type: GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHe	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:							
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Other:	<input checked="" type="checkbox"/> Bromide	<input checked="" type="checkbox"/> bromate	<input checked="" type="checkbox"/> Selenium	<input checked="" type="checkbox"/> Vanadium	<input checked="" type="checkbox"/> Molybdenum	<input checked="" type="checkbox"/> Hexavalent
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LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:
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FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-18		
Global ID: T0604500291		Well depth from TOC: 16'		
Project location: 3300 N Hwy 1, Albion, CA		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 9/30/05		Product level from TOC: ND		
Time: 10:30		Water level from TOC: 4.34		
Recorded by: R. Johnson		Screened interval: 5-16'		
Purge time (duration):		Well elevation (TOC): 146.64		

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 11.66	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 1 Well volumes removed: 7

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC $\times 10^{-3}$	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
4:01	5.12	1.09	64.2	-	.35	1/ 2	low turb
4:03	6.18	.98	64.2	-	.25	2/ 4	No stain
4:05	5.92	1.00	64.1	-	.25	3/ 6	Mild "HC" odor

Notes:

Water level after purging below TOC: 80% of original water level below TOC: 9

Water level before sampling below TOC: 4.4

Appearance of sample: Time: 4:30

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:  TPHg  TPHd  TPH  BTEX  oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:  Benzene  Brom Aro  Vanadium Selenium Molybdenum Hexavalent

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUND WATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT			
Project No: 0302		Field point name: DW-1					
Global ID: T0604500291		Well depth from TOC:					
Project location: 3300 N Hwy 1, Albion, CA		Well diameter: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:					
Date: 9/30/05		Product level from TOC:					
Time: 12:00		Water level from TOC:					
Recorded by: R. Johnson		Screened interval:					
Purge time (duration):		Well elevation (TOC):					
WEATHER							
Wind: 0-5 mph		Precip. in last 5 days: N					
VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING							
<input type="checkbox"/> 2" well = 0.17 gal/ft		<input type="checkbox"/> 6" well = 1.47 gal/ft		Gallons in 1 well volume:			
<input type="checkbox"/> 4" well = 0.66 gal/ft		<input type="checkbox"/> " well = gal/ft		Total gallons removed:			
CALIBRATION							
Parameter	Time	Calibration	Before Sampling	Time			
EC:							
FIELD MEASUREMENTS							
Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
					1/		
					2/		
					3/		
					/		
<p>Notes: RUN PUMP FOR 15 MIN PRIOR TO COLLECTING SAMPLE      collect sample from large BIB IN PUMP HOUSE 25'      NW of residence.</p>							
Water level after purging below TOC:			80% of original water level below TOC:				
Water level before sampling below TOC:							
Appearance of sample: Time:							
<input type="checkbox"/> Bailer:	Type:	GPM:	<input type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2		
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse				
Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs
EPA Method:							<input type="checkbox"/> Nitrates
Other:							
LABORATORY: <input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:						

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: LHW-2			
Global ID: T0604500391	Well depth from TOC: —			
Project location: 3300 N. Hwy 1, Alber, CA	Well diameter: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input checked="" type="checkbox"/> Other:			
Date: 9/30/05	Product level from TOC: —			
Time: 12:00	Water level from TOC: —			
Recorded by: R. Johnson	Screened interval: —			
Purge time (duration):	Well elevation (TOC): —			

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input type="checkbox"/> 2" well = 0.17 gal/ft	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: —	
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: —	Well volumes removed: —

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
					1/		
					2/		
					3/		
					/		

Notes: RUN HOSE BIB ON EAST SIDE OF RESTAURANT FOR 5 MIN. PRIOR TO COLLECTING SAMPLE. STAFF REPORTED THE WELL BY THE TOP OF THE BLUFF ON THE WEST SIDE OF THE ROAD (LHW-2) WAS SUPPLYING WATER

Water level after purging below TOC: 80% of original water level below TOC:

Water level before sampling below TOC:

Time:

Appearance of sample:

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:

Other:

LABORATORY:  McCampbell Analytical

Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: DP		
Global ID: T0604500291		Well depth from TOC: -		
Project location: 3300 N Hwy 1, Albion, CA		Well diameter: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 9/30/05		Product level from TOC: -		
Time: 12:00		Water level from TOC: -		
Recorded by: R. Johnson		Screened interval: -		
Purge time (duration):		Well elevation (TOC): -		

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
---------------	---------------------------

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input type="checkbox"/> 2" well = 0.17 gal/ft	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: -	
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: -	Well volumes removed: -

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
					1/		
					2/		
					3/		
					/		

Notes: Collect samples from THE NW CORNER OF THE DUCK POND water levels IN POND 2-3 feet Below top level

Water level after purging below TOC:	80% of original water level below TOC:
--------------------------------------	--

Water level before sampling below TOC:	Time:
--	-------

Appearance of sample:	Time:
-----------------------	-------

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 0-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
------------------	--	-------------------------------	------------------------------	--	--	--	-------------------------------	-----------------------------------

EPA Method:								
-------------	--	--	--	--	--	--	--	--

Other:								
--------	--	--	--	--	--	--	--	--

LABORATORY: <input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:
---	---------------------------------

# **Appendix B**

## **Laboratory Analytical Report**

OCT 14 2005



**McCampbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560  
Telephone : 925-798-1620 Fax : 925-798-1622  
Website: www.mccampbell.com E-mail: main@mccampbell.com

Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Reported: 10/07/05
	Client P.O.:	Date Completed: 10/07/05

**WorkOrder: 0509715**

October 07, 2005

Dear Chris:

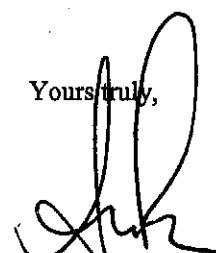
Enclosed are:

- 1). the results of 13 analyzed samples from your #0302; Albion Shell project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

  
Angela Rydelius, Lab Manager


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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 10/06/05-10/07/05
	Client P.O.:	Date Analyzed: 10/06/05-10/07/05

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\***

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0509715

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-2	W	3700,a	---	410	6.6	190	14	1	94
002A	MW-6	W	13,000,a	---	920	61	350	690	20	114
003A	MW-7	W	ND	---	ND	ND	ND	ND	1	95
004A	MW-10	W	ND	---	ND	ND	ND	ND	1	101
005A	MW-13	W	ND	---	ND	0.50	ND	1.0	1	95
006A	MW-14	W	ND	---	ND	0.56	ND	1.1	1	94
007A	MW-15	W	91,000,a	---	17,000	11,000	1500	6700	250	97
008A	MW-16	W	45,000,a	---	9600	2800	930	4200	33	102
009A	MW-17	W	ND	---	ND	ND	ND	ND	1	96
010A	MW-18	W	9900,a	---	2000	220	430	440	20	109
011A	DW-1	W	ND	---	ND	ND	ND	ND	1	97
012A	LHW-2	W	ND	---	ND	ND	ND	ND	1	95
013A	DP	W	ND	---	ND	ND	ND	ND	1	96

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.


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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 10/06/05-10/07/05
	Client P.O.:	Date Analyzed: 10/06/05-10/07/05

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0509715

Lab ID	0509715-001B	0509715-002B	0509715-003B	0509715-004B	Reporting Limit for DF =1	
Client ID	MW-2	MW-6	MW-7	MW-10		
Matrix	W	W	W	W		
DF	200	200	1	100	S	W
Compound	Concentration			ug/kg	ug/L	
tert-Amyl methyl ether (TAME)	ND<100	ND<100	ND	ND<50	NA	0.5
t-Butyl alcohol (TBA)	1800	ND<1000	ND	ND<500	NA	5.0
Diisopropyl ether (DIPE)	ND<100	ND<100	ND	ND<50	NA	0.5
Ethanol	ND<10,000	ND<10,000	ND	ND<5000	NA	50
Ethyl tert-butyl ether (ETBE)	ND<100	ND<100	ND	ND<50	NA	0.5
Methanol	ND<100,000	ND<100,000	ND	ND<50,000	NA	500
Methyl-t-butyl ether (MTBE)	6500	8200	ND	1400	NA	0.5
Surrogate Recoveries (%)						
%SSI:	107	105	106	104		
Comments						

\* water and vapor samples are reported in  $\mu\text{g}/\text{L}$ , soil/sludge/solid samples in  $\text{mg}/\text{kg}$ , product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in  $\text{mg}/\text{L}$ , wipe samples in  $\mu\text{g}/\text{wipe}$ .

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.


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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 10/06/05-10/07/05
	Client P.O.:	Date Analyzed: 10/06/05-10/07/05

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0509715

Lab ID	0509715-005B	0509715-006B	0509715-007B	0509715-008B	Reporting Limit for DF =1	
Client ID	MW-13	MW-14	MW-15	MW-16		
Matrix	W	W	W	W		
DF	2	3.3	1000	2000		
Compound	Concentration				ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND<1.0	ND<1.7	ND<500	ND<1000	NA	0.5
t-Butyl alcohol (TBA)	31	ND<17	ND<5000	ND<10,000	NA	5.0
Diisopropyl ether (DIPE)	ND<1.0	ND<1.7	ND<500	ND<1000	NA	0.5
Ethanol	ND<100	ND<170	ND<50,000	ND<100,000	NA	50
Ethyl tert-butyl ether (ETBE)	ND<1.0	ND<1.7	ND<500	ND<1000	NA	0.5
Methanol	ND<1000	ND<1700	ND<500,000	ND<1,000,000	NA	500
Methyl-t-butyl ether (MTBE)	81	94	28,000	63,000	NA	0.5
Surrogate Recoveries (%)						
%SS1:	106	107	105	104		
Comments						

\* water and vapor samples are reported in μg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in μg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.


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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 10/06/05-10/07/05
	Client P.O.:	Date Analyzed: 10/06/05-10/07/05

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0509715

Lab ID	0509715-009B	0509715-010B	0509715-011B	0509715-012B	Reporting Limit for DF =1	
Client ID	MW-17	MW-18	DW-1	LHW-2		
Matrix	W	W	W	W		
DF	1	1000	1	1		
Compound	Concentration				ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND	ND<500	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND<5000	ND	ND	NA	5.0
Diisopropyl ether (DIPE)	ND	ND<500	ND	ND	NA	0.5
Ethanol	ND	ND<50,000	ND	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND<500	ND	ND	NA	0.5
Methanol	ND	ND<500,000	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	22	32,000	ND	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	105	103	107	107		
Comments						

\* water and vapor samples are reported in μg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in μg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.


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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 10/06/05-10/07/05
	Client P.O.:	Date Analyzed: 10/06/05-10/07/05

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0509715

Lab ID	0509715-013B				Reporting Limit for DF =1
Client ID	DP				
Matrix	W				
DF	1				
Compound	<b>Concentration</b>				ug/kg
tert-Amyl methyl ether (TAME)	ND				NA 0.5
t-Butyl alcohol (TBA)	ND				NA 5.0
Diisopropyl ether (DIPE)	ND				NA 0.5
Ethanol	ND				NA 50
Ethyl tert-butyl ether (ETBE)	ND				NA 0.5
Methanol	ND				NA 500
Methyl-t-butyl ether (MTBE)	ND				NA 0.5
<b>Surrogate Recoveries (%)</b>					
%SS1:	105				
Comments					

\* water and vapor samples are reported in  $\mu\text{g}/\text{L}$ , soil/sludge/solid samples in  $\text{mg}/\text{kg}$ , product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in  $\text{mg}/\text{L}$ , wipe samples in  $\mu\text{g}/\text{wipe}$ .

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 10/03/05
	Client P.O.:	Date Analyzed: 10/05/05

Metals\*

Extraction method: E200.8

### Analytical methods: E200.8

Work Order: 0509715

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	DISS.	0.5	0.5	0.5	µg/L
	S	TTLC	NA	NA	NA	NA

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; o) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager



## **McCAMPBELL ANALYTICAL, INC.**

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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 09/30/05-10/01/05
	Client P.O.:	Date Analyzed: 10/03/05

## Hexachrome by IC\*

### Analytical Method: E218.6

Work Order: 0509715

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L	
	S	NA	

\* water samples are reported in  $\mu\text{g/L}$ .

N/A means surrogate not applicable to this analysis; # surrogate diluted out of range or surrogate coelutes with another peak.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to matrix interference; p) see attached narrative.



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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 10/03/05
	Client P.O.:	Date Analyzed: 10/03/05-10/04/05

## Inorganic Anions by IC\*

Analytical methods: E300.1

Work Order: 0509715

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.1	mg/L
	S	NA	NA

\* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted/raised due to high inorganic content/matrix interference; k) sample arrived with head space.



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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 09/30/05
		Date Received: 09/30/05
	Client Contact: Chris Janiszewski	Date Extracted: 10/04/05
	Client P.O.:	Date Analyzed: 10/04/05-10/05/05

## Inorganic Anions by IC\*

Analytical methods: E300.1

Work Order: 0509715

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.005	mg/L
	S	NA	NA

\* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L

# surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high inorganic content; k) sample arrived with head space.



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## QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509715

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 18358		Spiked Sample ID: 0509715-011A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) <sup>E</sup>	ND	60	106	.107	0.933	109	108	0.827	70 - 130	70 - 130
MTBE	ND	10	94.6	87.8	7.38	102	101	0.638	70 - 130	70 - 130
Benzene	ND	10	108	88	20.7	106	110	3.08	70 - 130	70 - 130
Toluene	ND	10	105	89.3	15.8	106	109	3.12	70 - 130	70 - 130
Ethylbenzene	ND	10	109	92.4	16.7	113	114	1.01	70 - 130	70 - 130
Xylenes	ND	30	100	94.7	5.48	107	100	6.45	70 - 130	70 - 130
%SS:	97	10	107	97	9.57	97	102	5.27	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

## BATCH 18358 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509715-001A	9/30/05 4:00 PM	10/06/05	10/06/05 8:37 PM	0509715-001A	9/30/05 4:00 PM	10/07/05	10/07/05 1:28 PM
0509715-002A	9/30/05	10/07/05	10/07/05 6:29 AM	0509715-003A	9/30/05 3:00 PM	10/07/05	10/07/05 5:15 PM
0509715-004A	9/30/05 3:05 PM	10/07/05	10/07/05 7:01 AM	0509715-004A	9/30/05 3:05 PM	10/07/05	10/07/05 3:10 PM
0509715-005A	9/30/05 3:10 PM	10/07/05	10/07/05 1:33 AM	0509715-006A	9/30/05 3:20 PM	10/07/05	10/07/05 2:06 AM
0509715-007A	9/30/05 5:00 PM	10/07/05	10/07/05 2:58 PM	0509715-008A	9/30/05 4:45 PM	10/07/05	10/07/05 7:34 AM
0509715-008A	9/30/05 4:45 PM	10/07/05	10/07/05 3:17 PM	0509715-009A	9/30/05 3:30 PM	10/07/05	10/07/05 2:39 AM
0509715-010A	9/30/05 4:30 PM	10/07/05	10/07/05 8:07 AM	0509715-010A	9/30/05 4:30 PM	10/07/05	10/07/05 3:47 PM
0509715-011A	9/30/05 2:30 PM	10/07/05	10/07/05 4:18 AM	0509715-012A	9/30/05 2:40 PM	10/07/05	10/07/05 3:12 AM
0509715-013A	9/30/05 2:50 PM	10/07/05	10/07/05 3:45 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

E TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McCampbell Analytical, Inc.

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## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509715

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 18351			Spiked Sample ID: 0509715-009B		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	110	106	4.26	112	109	2.60	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	94	94.7	0.740	98.4	95.1	3.44	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	119	118	1.08	118	119	0.0629	70 - 130	70 - 130
Ethanol	ND	500	112	107	4.13	110	106	3.11	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	114	112	2.00	111	111	0	70 - 130	70 - 130
Methanol	ND	2500	103	104	0.648	107	103	4.27	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	22	10	NR	NR	NR	113	113	0	70 - 130	70 - 130
%SS1:	105	10	104	104	0	104	105	1.10	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

## BATCH 18351 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509715-001B	9/30/05 4:00 PM	10/06/05	10/06/05 4:02 PM	0509715-002B	9/30/05	10/06/05	10/06/05 6:11 PM
0509715-003B	9/30/05 3:00 PM	10/06/05	10/06/05 6:53 PM	0509715-004B	9/30/05 3:05 PM	10/06/05	10/06/05 7:36 PM
0509715-005B	9/30/05 3:10 PM	10/06/05	10/06/05 8:18 PM	0509715-006B	9/30/05 3:20 PM	10/06/05	10/06/05 9:01 PM
0509715-007B	9/30/05 5:00 PM	10/07/05	10/07/05 1:52 PM	0509715-008B	9/30/05 4:45 PM	10/07/05	10/07/05 2:35 PM
0509715-009B	9/30/05 3:30 PM	10/07/05	10/07/05 6:09 AM	0509715-010B	9/30/05 4:30 PM	10/07/05	10/07/05 3:18 PM
0509715-011B	9/30/05 2:30 PM	10/07/05	10/07/05 7:33 AM	0509715-012B	9/30/05 2:40 PM	10/07/05	10/07/05 8:15 AM
0509715-013B	9/30/05 2:50 PM	10/07/05	10/07/05 8:58 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogeneous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

 QA/QC Officer



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## QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509715

EPA Method: E200.8		Extraction: E200.8		BatchID: 18354		Spiked Sample ID: 0510055-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Molybdenum	2.5	10	101	104	2.12	99.7	104	3.93	75 - 125	85 - 115
Selenium	ND	10	102	102	0	102	103	1.18	75 - 125	85 - 115
Vanadium	5.0	10	99.2	104	3.24	108	109	0.923	75 - 125	85 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

## BATCH 18354 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509715-001D	9/30/05 4:00 PM	10/03/05	10/05/05 4:27 PM	0509715-002D	9/30/05	10/03/05	10/05/05 4:55 PM
0509715-007D	9/30/05 5:00 PM	10/03/05	10/05/05 5:04 PM	0509715-008D	9/30/05 4:45 PM	10/03/05	10/05/05 5:13 PM
0509715-009D	9/30/05 3:30 PM	10/03/05	10/05/05 5:23 PM	0509715-010D	9/30/05 4:30 PM	10/03/05	10/05/05 5:32 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer



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## QC SUMMARY REPORT FOR E218.6

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509715

EPA Method: E218.6		Extraction: E218.6		BatchID: 18362			Spiked Sample ID: 0509715-001c			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Hexachrome	ND	25	101	103	1.69	92.2	99.5	7.60	90 - 110	90 - 110

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 18362 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509715-001c	9/30/05 4:00 PM	10/03/05	9/30/05 10:26 PM	0509715-002c	9/30/05	10/03/05	9/30/05 11:00 PM
0509715-007c	9/30/05 5:00 PM	10/03/05	9/30/05 11:33 PM	0509715-008c	9/30/05 4:45 PM	10/03/05	0/01/05 12:06 AM
0509715-009c	9/30/05 3:30 PM	10/03/05	0/01/05 12:40 PM	0509715-010c	9/30/05 4:30 PM	10/03/05	10/01/05 1:13 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer



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## QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509715

EPA Method: E300.1		Extraction: E300.1			BatchID: 18235			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Bromide	N/A	1	N/A	N/A	N/A	110	106	4.04	N/A	85 - 115
%SS:	N/A	0.10	N/A	N/A	N/A	96	95	0.209	N/A	90 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 18235 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509715-001c	9/30/05 4:00 PM	10/03/05	0/03/05 10:42 PM	0509715-002c			9/30/05
0509715-007c	9/30/05 5:00 PM	10/03/05	0/03/05 11:40 PM				10/03/05 11:11 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

 QA/QC Officer



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## QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509715

EPA Method: E300.1		Extraction: E300.1			BatchID: 18361			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Bromide	N/A	1	N/A	N/A	N/A	93	93.9	0.956	N/A	85 - 115
%SS:	N/A	0.10	N/A	N/A	N/A	99	99	0	N/A	90 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 18361 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509715-008c	9/30/05 4:45 PM	10/03/05	0/04/05 12:09 AM	0509715-009c	9/30/05 3:30 PM	10/03/05	0/04/05 12:38 PM
0509715-010c	9/30/05 4:30 PM	10/03/05	10/04/05 1:06 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

 QA/QC Officer



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Website: www.mccampbell.com E-mail: main@mccampbell.com

## QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509715

EPA Method: E300.1		Extraction: E300.1		BatchID: 18385		Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Bromate	N/A	0.040	N/A	N/A	N/A	101	103	2.23	N/A	90 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 18385 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509715-001c	9/30/05 4:00 PM	10/04/05	0/04/05 10:09 PM	0509715-002c		9/30/05	10/04/05 10:51 PM
0509715-007c	9/30/05 5:00 PM	10/04/05	0/04/05 11:33 PM	0509715-008c	9/30/05 4:45 PM	10/04/05	0/05/05 12:15 PM
0509715-009c	9/30/05 3:30 PM	10/04/05	0/05/05 12:56 AM	0509715-010c	9/30/05 4:30 PM	10/04/05	10/05/05 1:38 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

 QA/QC Officer

# Chain of Custody Report

P.O. Box 3039, Rohnert Park, CA 94927  
 Tel: (707) 792-9500 (800) 474-1448 Fax: (707) 792-9504

0509715

## Facility Name & Location:

EC&A job # 0303  
 Global I.D. # T060 4500291  
 Facility Name & Location:  
 AUBURN SHELL  
 3300 N Auburn CA

Samplers Signature: Others JANGREY/JI

E-mail in EDF for Upload to Geotracker:	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Initials <u>CJ</u>	

Analysis										Remarks	
Field Point Name	Date	Time	Sample ID (depth)	Sample Type	Media	# of Items	Dissolve		Refrigerate		Appropriate Container Preserved in Lab
							Was	One	Metals	Other	
MW-2	9/3/05	400		debris	W	3/3	X	X	X	X	
MW-6	4/15					3/3	X	X	X	X	
MW-7	200					3	X	X	X	X	
MW-10	346					3	X	X	X	X	
MW-13	310					3	X	X	X	X	
MW-14	320					3	X	X	X	X	
MW-15	50					3/3	X	X	X	X	
MW-16	445					3/3	X	X	X	X	
MW-17	330					3/3	X	X	X	X	
MW-18	440					3/3	X	X	X	X	
Relinquished by:		Date: 9/3/05	Time: 11:50	Received by: <u>John</u>	Relinquished by:		Date: 9/3/05	Time: 11:50	Received by:	Received by:	
Relinquished by:		Date:	Time:	Received by:	Relinquished by:		Date:	Time:	Received by:	Received by:	

**Edd Clark &  
Associates, Inc.**

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**Environmental  
Consultants**

## Chain of Custody Report

P.O. Box 3039, Rohnert Park, CA 94926  
Tel: (707) 792-9500 (800) 474-1448 Fax: (707)

E-mail in EDF for Upload to Geotracker:  
Yes  No  Initials CT

**McCampbell Analytical, Inc.**

110 Second Avenue South, #D7  
Pacheco, CA 94553-5560  
(925) 798-1620

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1



WorkOrder: 0509715 ClientID: ECAR EDF: YES

Report to: **Chris Janiszewski**TEL: (707) 792-9500  
FAX: (707) 792-9504ProjectNo: #0302, Albion Shell  
PO:320 Professional Center Ste. 215  
Rohnert Park, CA 94928Bill to: **Accounts Payable**

Edd Clark &amp; Associates, Inc.

320 Professional Center Ste.215

Rohnert Park, CA 94928

Date Received: 09/30/2005

Date Printed: 10/03/2005

Requested TAT: 5 days

Sample ID	ClientSampleID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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0509715-001	MW-2	Water	9/30/05 4:00:00 PM	<input type="checkbox"/>	C	C	B	A	D	D	A							
0509715-002	MW-6	Water	9/30/05	<input type="checkbox"/>	C	C	B	A	D	D								
0509715-003	MW-7	Water	9/30/05 3:00:00 PM	<input type="checkbox"/>		B	A											
0509715-004	MW-10	Water	9/30/05 3:05:00 PM	<input type="checkbox"/>		B	A											
0509715-005	MW-13	Water	9/30/05 3:10:00 PM	<input type="checkbox"/>		B	A											
0509715-006	MW-14	Water	9/30/05 3:20:00 PM	<input type="checkbox"/>		B	A											
0509715-007	MW-15	Water	9/30/05 5:00:00 PM	<input type="checkbox"/>	C	C	B	A	D	D								
0509715-008	MW-16	Water	9/30/05 4:45:00 PM	<input type="checkbox"/>	C	C	B	A	D	D								
0509715-009	MW-17	Water	9/30/05 3:30:00 PM	<input type="checkbox"/>	C	C	B	A	D	D								
0509715-010	MW-18	Water	9/30/05 4:30:00 PM	<input type="checkbox"/>	C	C	B	A	D	D								
0509715-011	DW-1	Water	9/30/05 2:30:00 PM	<input type="checkbox"/>		B	A											
0509715-012	LHW-2	Water	9/30/05 2:40:00 PM	<input type="checkbox"/>		B	A											
0509715-013	DP	Water	9/30/05 2:50:00 PM	<input type="checkbox"/>		B	A											

Test Legend:

1	218_6_W
6	PDISSOLVED
11	
12	

3	300_1_W
8	PRED REPORT
13	

4	7-OXYS_W
9	
14	

5	METALSMS_DISS
10	
15	

Prepared by: Rosa Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

# **Appendix C**

## **O&M Logs**

## EC&amp;A OPERATIONS AND MAINTENANCE LOG

Page 1 of 1

Project and Task Number:		0302		Date:		8/31/05				
Project Name:		Albion Shell		Project Location:		3300 N. Hwy 1				
Name:	Chris J		Company:	EC&A		In:	Out:			
TIME	DESCRIPTION OF WORK PERFORMED									
	SYSTEM DOWN BURNT WIRES 1) MAIN POWER SWITCH @ WIRE BLOCK      GFI Nueton 2) WIRE BLOCK TO THE RIGHT OF LATCH RELAY (red wire) REPLACE LARGE BLOCK 3 ORDER SMALL BLOCK BY LATCH, SPICE RED WIRE TEMPORARILY Rewire Panel for (AUTO start up) TWO TRANSFORMERS + Relay									
Well ID										
Temp °F	See T-2									
DO mg/L										
Sys clock	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10
4358/32	20	19	23	20	22	22	24	24		

NO run time

## EC&amp;A OPERATIONS AND MAINTENANCE LOG

Page 1 of 1

Project and Task Number:		0302		Date:		8/31/05				
Project Name:		Albion Shell		Project Location:		3300 N. Hwy 1				
Name:	Chris J		Company:	EC&A		In:	Out:			
TIME	DESCRIPTION OF WORK PERFORMED									
	SYSTEM RUNNING Rewire panel for (AUTO start up) TWO TRANSFORMERS AND Relay clean out INTAKE 3 clean air compressors									
Well ID										
Temp °F	See T-2									
DO mg/L										
Sys clock	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10
5861/14	26	25	30	25	31	27	27	28		

## EC&amp;A OPERATIONS AND MAINTENANCE LOG

Page 1 of \_\_\_\_\_

Project and Task Number: 0302

Date: 08/31/05

Project Name: Albion Shell

Project Location: 3300 N. Hwy 1

Name: Chas S

Company: EC&amp;A

In:

Out:

TIME	DESCRIPTION OF WORK PERFORMED									
	T-3 PANE									
	SYSTEM RUNNING Rewire Power box (AUTO START UP) TWO TRANSFORMERS AND relay clean out INTAKE 3 clean out compressor									
	03 15. 0.00 ppm IN STATION AND Del. Blod									
Well ID	MW-17	2	16	15	6	18				
Temp °F	63	61.7	60.9	59.4	59.9	60.7				
DO mg/L	1.11	.14	.14	.15	.14	.31				
Sys clock	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10
4801/67	20	20	24	25	20	24	25	25		

## EC&amp;A OPERATIONS AND MAINTENANCE LOG

Page 1 of 1

Project and Task Number: 0302

Date: 9/30/05

Project Name: ALBION SHELL

Project Location: 3300 N Hwy #1

Name: Chas S

Company: EC&amp;A

In:

Out:

	SYSTEM RUNNING 03 ppm 03 out of compressor OPEN UP COMPRESSOR 3 CLEAN 3 INSPE. RECOMMEND NEW PISTON NEXT OEM. RE ASSEMBLE. INSTALL FAR RIGHT SMALL WIRE BLOCK (corroded). (V) ALL WIRE CONNECTIONS LOWER FAN REPLACED. (NOT RUNNING) PRESSURE CHECK CLEAN OUT INTAKE TUBE RECOMMEND INTAKE FILTER REPLACE DOOR RED LIGHT BULB (BURNED OUT)									
Well ID										
Temp °F										
DO mg/L										

Sys clock	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	PARTS	SMALL WIRE BLOCK
4967/54	21	19	24	off	20	22	25	24			FAN	BULB

## EC&amp;A OPERATIONS AND MAINTENANCE LOG

Page 1 of 1

Project and Task Number:	0302		Date:	9/30/05							
Project Name:	ALBION SHELL		Project Location:	3300 N Hwy #1							
Name:	CHRIS J	Company:	ECTA	In:	Out:						
<p>SYSTEM RUNNING , 04-105 PPM O<sub>2</sub> OUT OF COMPRESSOR      OPEN &amp; CLEAN OUT COMPRESSOR RECOMMEND NEW PISTON / MC      NEXT O/M, CYLINDER FLIPPED TWICE BUT GOOD CONDITION      CLEAN OUT INTAKE, PRESSURE CHECK, TIGHTEN ALL WIRE      BLOCKS</p>											
Well ID											
Temp °F	DO ON QM FIELD LOGS										
DO mg/L											
Sys clock	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	
10219/49	26	25	30	25	30	27	27	30			

## EC&amp;A OPERATIONS AND MAINTENANCE LOG

Page 1 of 1

Project and Task Number:	0302		Date:	9/30/05							
Project Name:	ALBION SHELL		Project Location:	3300 N Hwy #1							
Name:	CHRIS J	Company:	ECTA	In:	Out:						
<p>SYSTEM RUNNING , 03-04 PPM O<sub>2</sub> OUT OF COMPRESSOR      OPEN COMPRESSOR ENSP/CLEAN, RECOMMEND NEW      PISTON ON NEXT O/M ✓) ALL WIRE CONNECTION      CLEAN INTAKE TUBE, REPROGRAM TIMER, PRESSURE CHECK</p>											
Well ID											
Temp °F	DO ON QM FIELD LOGS										
DO mg/L											
Sys clock	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SP-10	
5361/86	25.5	25	25.5	27	26	25	27.5	25	25.5	✓	